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Investigations Of The Impostor Phenomenon Among Female First-Generation College Students And A Research University

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DEDICATION

This dissertation is dedicated in memory of my father, the late Ellis Martin, and my mother, the late Clara Martin. Although no longer here on earth, your presence is felt each and every day.

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Finally, to the impostor within, I would like to say farewell. You have been a part of this journey from the beginning and I would like to bring this final chapter to a close…without you.

ABSTRACT

This study investigated whether first-generation female students experience the Impostor Phenomenon, and the extent these students suffer from the phenomenon. A convenience sample was used to draw from a targeted group of 205 first-generation college students. The method of data collection was a self-reporting survey, the Survey of First-Generation College Students, which consisted of a demographic survey and the Clance Impostor Phenomenon Scale (CIPS). Descriptive statistics found 90% of students in this study experienced impostor feelings. Of those experiencing IP, 31.7% experienced moderate feelings, 45% experienced frequent feelings, and 13.3% of participants reported intense feelings. Fear and hesitation of potential performance and doing poorly when completing tasks were most prevalent amongst these IP sufferers. Independent sample t-test found no significant relationship between feelings of IP based on the student's cultural or ethnic minority status, parents with less than a high school education, or receipt a Federal Pell Grant. Bivariate (Pearson) correlations found no differences between IP feelings and time in college, nor between IP feelings and grade point average. Although no differences were found between the varying demographic characteristics, the negative effects of IP on students are well documented. Therefore, the need to understand IP is valuable when identifying those at risk of leaving, and strategic planning necessary to retain and graduate these students.

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Chapter 1

INTRODUCTION

Increased competition for students and tuition dollars, declining state appropriations, increased scrutiny by federal government agencies, and added pressures to deliver a number of outcomes within a limited four-year time frame have left many colleges and universities facing a serious crisis (Woodson, 2013). At the same time, diverse curricula, modern facilities, and immediate job placement are being demanded by students and parents alike. Institutions of Higher Education (IHEs) are working double time to recruit new students and retain those currently enrolled while under pressure to maintain and accomplish more with tighter budgets. Certainly, the emphasis on most campuses is to ensure student success, retention, and completion (Woodson, 2013).

In 2009, President Barak Obama unveiled his vision to recapture the title as a world leader in college graduation rates by 2020. The United States ranked 12th in young workers (ages 25-34) with four-year college degrees. The country ranked 17th among 40 developed countries for education; overall, future growth and prosperity of the country is dependent on having a well-educated workforce and increased graduation rates which spurred the American Graduation Initiative (Obama, 2009). Following the 2016 Presidential election, a report by the American Association of State Colleges and Universities (2017) highlighted the continued economic distress and demand for additional high paying jobs. A great divide amongst those with and without education or formal training remains. In addition to pending new state and federal directives and

higher education legislation, the American Association of State Colleges and Universities (2017) foresees state budgets as the main issue for public colleges and universities.

Lopez (2006) suggests that with continued demographic shifts, the quality of K-12 schools and projections that more first-generation college and low-income students will be applying for college. This means that the success of this new breed of students is crucial to meeting future workforce demands. Jobs in the future will require high-level skills and a knowledge base obtained in postsecondary education. Institutions of higher education, therefore, must address the needs of perhaps less-prepared undergraduates to ensure retention and graduation. These colleges and universities will be responsible and accountable more than ever for understanding the experiences and needs of undergraduates that reduce early departures and help them get to graduation.

Each year, record-breaking numbers of new students enter the grand halls of colleges and universities across the country (U.S. Department of Education, NCES, 2013). Unfortunately, rates of dropouts or students who are slow to graduate are also rising at an alarming rate. According to the National Center for Education Statistics (2014), less than 59% of first-time, full-time public college and university students graduated within six years. A mere 31% of first-time, full-time students will graduate within the traditional time frame of four years. According to this same report, 31% of first-time, full-time students are not likely to graduate at all.

Access and enrollment has risen significantly in recent years. The number of first-generation college students (FGCS), defined as those whose parent(s) with whom he/she resides have no post-secondary educational experience or with a family

background with little or no knowledge of post-secondary education, has been significantly increasing (Pascarella, Pierson, Wolniak & Terenzini, 2004; Saenz et al, 2007). As more of these students enter higher education, educators must be aware of the increased and rather unique needs of this student population to ensure these students are aware of how to navigate a college campus and feel comfortable and supported. Success, retention, and persistence may ultimately depend on the ability to provide services that help students become accustomed to, and comfortable with, campus culture. As the diversity of college populations increases, student affairs professionals need to be aware and knowledgeable of these diverse challenges and become intentional in establishing conditions to enhance student engagement and overall experience. Kuh (1991) suggests colleges must be, "committed to pluralism in all its forms, and they support the establishment and coexistence of sub-communities that permit students to identify with and receive support from the people like themselves, so they can feel comfortable in becoming involved in the larger campus community" (p. 369).

First-generation students have a much higher probability of dropping out and not completing two-year or four-year degrees. They come to college with a host of disadvantages that sets them apart socially, emotionally, academically, and even psychologically. Because they do not come from college-going families, these students often have one foot rooted in their families and personal histories, and the other foot on the new, more competitive and academically challenging landscape of colleges and universities (Choy, 2001; Terenzini, Springer, Yaeger, Pascarella & Nora, 1996; Pascarella et al, 2004).

Problem Statement

Barriers obstruct academic success at four-year colleges and universities encountered by first-generation college students especially when combined with the complexities of being female. Issues of lower self-esteem, and additional responsibilities at home, combined with the development of the impostor phenomenon makes it difficult for these students to be successful at the university level. The impostor phenomenon (IP) prevents its sufferers from internalizing success (Clance & Imes, 1978; Kets de Vries, 2005; Want & Kleitman, 2006; Parkman, 2016). This phenomenon often develops prior to entering college, but then manifests itself in college when stresses are associated with a new unfamiliar environment and rigorous academic requirements (Davis, 2010). Although some research has been completed on the presence of IP among faculty and students on campus, studies involving first-generation college females, and especially how college experiences impact these possible feelings is very limited (Wang & Castaneda-Sound, 2008).

First-generation college students are at risk due to lower levels of academic and social integration (Terenzini, Springer, Yaeger, Pascarella & Nora, 1996). The challenges of attending college may lead to greater feelings of anxiety, depression, fatigue, worry, and lack of self-confidence (Clance & Imes, 1978). Harvey & Katz's (1985) research suggested that especially first college generation students who surpass the educational level of their parents are at risk of developing IP. Harvey (1981) also noted that being the first to attend college or obtain a degree might cause an internal conflict over one's identity within the family. Families often encourage career paths that are "typical" to the family and prefer to avoid risky career paths and may continue to

exacerbate impostor feelings by providing little encouragement and rejecting the student after her success (Harvey, 1981; Harvey & Katz, 1985). Stebleton and Soria (2012) found that first-generation students were more likely to experience feelings of not being consistently confident, grounded, or connected to their peers.

Purpose Statement

The purpose of this study was to investigate the prevalence and extent to which the impostor phenomenon is present among first-generation female college students who attend a state research university in the south-central United States. This study sought connections between the backgrounds and academic experiences of these students, and to what extent the impostor phenomenon is manifested. Based on the literature, it was anticipated that these female students may suffer differing degrees of impostor phenomenon during their undergraduate career. It was also postulated that some of these feelings of inferiority may be exacerbated or alleviated based on the experiences these students have while at the university. Therefore, the research not only gauged students' self-perception of being "impostors", but also sought to understand whether field of study, years attending the university, extent of academic success, parents' level of education, and socioeconomic status relate to these students' overall self-esteem and belief in their own abilities. Student demographic characteristics were analyzed to see whether impostor feelings were related to individual background.

Research Questions

This study was guided by the following research questions:

1. What percentage of female first-generation college students suffer the impostor phenomenon?

2. For female first-generation college students who suffer from the impostor phenomenon, what factors are most prevalent?
3. Are there differences in impostor phenomenon suffered by female first-generation college students between demographic characteristics: Specifically, (a) cultural or ethnic minority; (b) parents with less than a high school education; and (c) receive a Federal Pell Grant?
4. Is there a relationship between impostor phenomenon feelings suffered by female first-generation college students with academic factors? Specifically, (a) time in college or (b) grade point average.

Theoretical Framework of Study

To connect the success and thoughts of failure as they pertain to the female first-generation college students, the female-centered Empowerment Feminist Therapy (EMT) framework will be used. A broad goal of feminist intervention is empowerment, which "enables individuals, families and communities to exert influence over the personal, interpersonal, and institutional factors that impact their health and well-being. The overall goals of personal and social empowerment emphasize client strength and resilience in coping with past, current and future trauma and stress" (Worell & Remer, 2003, p. 23-24). According to Worell and Remer (2003), feminist research helps to "broaden the knowledge base about women's mental health concerns" (p. 21), which supports the focus on college women, their identities, and personal empowerment, as well as stress and adjustment issues. It also values the strength of women and the importance of examining life experiences in a cultural context.

Worell and Remer (2003), identified four major philosophies of the Empowerment Feminist Therapy: (a) personal and social identities are interdependent, (b) the personal is political, (c) relationships are egalitarian, and (d) women's perspectives are valued. For this study, the first two principles will be discussed further to demonstrate their relevance and connection. In reviewing the first principle, Personal and Social Identities are Interdependent, we understand college campuses across the country are diverse and come with varying intersecting social identities. Within the second principle, Personal is Political, the environment is the main source of problems. The environment in this study is the college campus. Female students, in particular, face pressures daily to be successful both academically and socially. This increased pressure to be successful prohibits them from functioning effectively in what is considered an oppressive environment. Feminist empowerment helps resolve feelings of being different and works to replace feelings of powerlessness with strength and newly developed pride in the ability to deal with current and future challenges.

Background

Impostor Phenomenon

It is estimated that 70% of people will, in their lifetime, experience the impostor phenomenon at least once. According to Harvey (1981), anyone who fails to internalize success is subject to viewing themselves as an impostor. The impostor phenomenon (IP) has been documented within academia and it has the potential to negatively affect the retention of faculty, staff, and students (Parkman, 2016). Davis (2010) identified the phenomenon as a struggle the first-generation college students may face. IP, in this case, suggests FGCS may refrain from participating in class because they perceive

themselves as not have anything worthwhile to contribute as other students would. Further, reports have shown FGCS often feel academically inferior and as if they are not academically prepared for the transition from high school to college level courses. Stephen Brookfield (1978, described the impostor phenomenon as an innate fear of being unmasked as something which we are not. "We wear an external mask of control, but beneath it we know that really we are frail figures, struggling to make it through to the end of each day. There is the sense that around the corner is an unforeseen but cataclysmic event that will reveal us as frauds" (p. 230).

This condition is an internal sense of phoniness; despite having achieved numerous accomplishments, most often academic achievements, individuals with IP are not able to connect their successes as being a result of their own doing but rather attribute them to external factors such as luck or chance (Clance & Imes, 1978). Individuals who suffer from IP not only underestimate their own abilities but also fail to apply for, or believe they are qualified for, appropriate professional positions. For example, a chair of a university department with IP was quoted saying, "Obviously I'm in this position because my abilities have been over estimated," (p. 1). Another example is a female researcher possessing two master's degrees, earning a PhD degree, and completing a number of publications felt she was not qualified to teach a remedial college course in her related field of study. An interviewee with Clance & Imes (1978) shared her fear of discovery:

> *"I was convinced that I would be discovered as a phony when I took my comprehensive doctoral examination. I thought the final test had come. In one way, I was somewhat relieved at this prospect because the pretense would*

finally be over. I was shocked when my chairman told me that my answers were excellent and that my paper was one of the best he had seen in his entire career." (p. 9)

Individuals experiencing IP feel like "impostors" and are afraid others may discover they do not belong and that their secret inferiority will soon be exposed to the world (Clance & Imes, 1978; Clance & O'Toole, 1988; Gibson-Beverly & Schwartz, 2008). Impostors lack internal confidence despite being highly competent individuals and driven to achieve. Impostors will work extremely hard to avoid detection as being a fake or phony (Harvey & Katz, 1985). Impostors may, for a brief moment, feel good about their achievements and accomplishments; however, these feeling are short lived and begin to fade, especially when a new task or challenge is introduced to them, so the cycle continues (Clance & Imes, 1978).

In addition to this severe insecurity, IP sufferers may be introverts with generalized anxiety, fear of failure, evaluation, humiliation, or shame. As a result, these individuals often find it difficult to accept praise. Although the impostor may experience symptoms ranging from generalized anxiety and depression to paralyzing fear of failure, procrastination and debilitating perfectionism, IP is not categorized in the Diagnostic & Statistical Manual of Mental Disorders (APA, 2013).

First-Generation College Students

In 2001 it was estimated one in six first-year college students was a first-generation college student (Choy, 2001). In 2006, the U.S. Department of Education reported approximately 30% of incoming first-year students were considered first-generation. Of those, 24% (4.5 million) were both first-generation and low-income. At

the national level, 89% of low-income first-generation college students drop out within six years of enrolling. Navigating the "bureaucratic landscape" of higher education can be challenging and overwhelming for any new college student and the first-generation student experiences this to a greater degree than their non-first-generation peers do. For example, first-generation students are often identified as ethnic minority, may be older, have a diagnosed disability, are more likely to live-off campus, and are more often non-native English speakers. The first-generation student may also be academically underprepared and in need of remedial assistance (Choy, 2001; Terenzini, Springer, Yaeger, Pascarella & Nora, 1996; Pascarella et al, 2004; Stebleton and Soria, 2012). Because of these challenges, 23.5% compared to an average of 67.5% of non-FGCS attain a bachelor's degree (Chen & Carroll, 2005).

The lack of familial support or understanding also leaves the FGCS "bouncing between two cultures" (Hsiao, 1992, p 2). These students often feel obligated to meet the demands of friends and family at home as well as fulfilling academic and social roles within their college community, thus feeling torn between the two (London, 1989). Terenzini (2004) describes this transition to college as the breaking of family tradition.

To reiterate, first-generation college students have been defined in various ways but generally refers to students whose parents/guardians have not earned a college degree, have not attended a post-secondary institution, or otherwise had no college experiences. The U.S. Department of Education, in the Higher Education Act (2008), defined first-generation college student as an individual whose parents both did not complete a baccalaureate degree; or in the case of any individual who regularly resided

with and received support from only one parent, who did not earn a baccalaureate degree.

Research on first-generation college students has typically used a variety of quantitative techniques to produce generalized descriptions of this group (Orbe, 2008). Previous studies have investigated academic persistence, adjustment to college rigor, and other factors that contribute to academic performance. Little research, however, has focused on nonacademic personal factors that influence college success, such as psychological well-being (stress, depression, self-esteem) (Wang & Castaneda-Sound, 2008). Literature has, however, shown that first-generation, under-represented/ethnic minority students, and students from low-income families have significantly lower graduation rates and extended time to graduation (Choy, 2001; Pryor et al, 2006; Saenz et al, 2007).

In recent years, qualitative studies have begun to take a closer look at the complexities of FGCS identity negotiation and lived experiences (Orbe, 2008). Even with these advancements in research, few have discussed successful experiences of first-generation students. In 2014, as few as 40 peer-reviewed journals articles describing the lived experiences of first-generation students existed in the area of education (Demetriou, 2014). Morales (2012) and Easley, Bianco, and Leech (2012) are the leaders amongst the small group of researchers studying the success of this population. Morales (2012) explored how the liberal arts contributed to the first-generation student's undergraduate experience. Easley, Bianco, and Leech (2012) described student motivations to attend and persist in college.

Female College Students

Research has shown that women, in particular, are more likely to experience the impostor phenomenon more frequently and intensely than their male counterparts due to the effects of stereotypes related to gender role and early gender socialization (Freeman, 2004). The number of women entering colleges and universities at the undergraduate level has been steadily increasing since the 1970s and has continued through the 2000s. According to Freeman (2004), women entering undergraduate studies have increased from 42% to 56% from 2000-2014.

Justification for Study

Research on the impostor phenomenon has been separated into four major categories: (1) studies to understand the development and treatment of the impostor phenomenon; (2) studies developing instruments to measure IP and scale validation; (3) research assessing the relationships of IP with other constructs; and (4) works that identify the presence of the phenomenon in individuals (Roskowski, 2010). This study will add to the literature that has begun to address psychological well-being as it relates to the impostor phenomenon and to the research on first-generation college students, specifically females. Stebleton and Soria (2012) determined that the number of student mental health concerns is on the rise. According to Timberlake (2005), colleges and universities welcome first-generation students onto their campuses, however they may not be prepared to engage or support them academically or socially. Engle and Tinto (2008) assert the importance of personnel to assist in orientation and transition to college. Academic and social adjustment is key in retaining first-generation students (Engle & Tinto, 2008).

Although research on first-generation students has been on the rise in recent years, it has typically focused on characteristics, transition issues, and persistence. Very little is known about the college experience or cognitive and psychosocial development of the individuals from non-college going families (Pascarella, Pierson, Wolniak & Terenzini's, 2004). The little research that has been completed has been typically studied in men and undergraduate students; very few studies have examined specifically female, first-generation college students. (Gibson-Beverly & Schwartz, 2008).

Stebleton and Soria (2012) suggests it is important for educators, learning assistants, and peer educators (fellow students) to be aware of issues relegated to counseling and be prepared to become "brokers" of campus resources that can best be of assistance to FGCS. Educators can play a vital role in assisting first-generation students in reaching goals and being successful. Wang and Castaneda-Sound (2008) state that few studies examine this population's psychological well-being and as a result, little is known about how common models of well-being apply to this unique population. As the number of first-generation programs increase on university campuses, it is now more important than ever for university administrators, student affairs professionals, and university counseling centers to understand these issues and concerns. Appropriate actions must be taken and strategies/policies put into action to not only increase the psychological health and well-being but the college experience of these students, which in turn will increase the retention and graduation of these FGCS.

Definition of Terms

First-generation College Student. A student whose parents or guardians have not earned a 4-year degree.

Impostor. A person who experiences impostor phenomenon.

Impostor Phenomenon. Individuals possessing an internal experience of phoniness despite numerous accomplishments, including academic achievements. These individuals are not able to view their successes as being a result of their own doing and attribute them to external factors such as luck (Clance & Imes, 1978).

Clance Impostor Phenomenon Scale. A 20 item self-reporting survey instrument that measures the extent to which respondents suffer from the impostor phenomenon, including fear of being evaluated, feelings of being less capable than peers, fear that successes cannot be repeated, and other feelings of inadequacy.

Institutions of Higher Education (IHE). Institutions (colleges/universities) providing undergraduate education and awarding bachelor's degrees.

Chapter 2

LITERATURE REVIEW

There is something I don't know
that I am supposed to know.
I don't know what it is I don't know,
and yet am supposed to know,
and I feel I look stupid
if I seem both not to know it
and not to know what it is
I don't know.
Therefore I pretend I know it.
That is nerve racking
since I don't know
what I must pretend to know.
Therefore I pretend to know everything.
I feel you know
what I am supposed to know
but you can't tell me what it is
because you don't know that
I don't know what it is.
You may know what I don't know,
but not that I don't know it,
and I can't tell you.
So you will have to tell me EVERYTHING.

R D Laing, 1970

The purpose of this chapter is to provide a review of relevant literature on first-generation college students, student services and university support systems, and the nature and impact of the impostor phenomenon on first-generation and low-income female students. Additionally, this chapter will present information about the Empowerment Feminist Therapy theory used to guide this study.

Description of the Impostor Phenomenon

Early Concepts

Concepts related to the impostor phenomenon (also referred to as the Impostor Syndrome) can be found in literature dating back to Sigmund Freud's psychoanalysis and research on ego psychology. Early research focused on the syndrome in men. Deutsch (1955), a psychoanalyst, conceptualized impostorism as an identity disorder. Deutsch and others believed male impostors used false or pretend (masculine) identities to fabricate achievements to reconcile inadequacies. In early research, the impostor was believed to possess a Super Ego, which predisposed him to adopt or borrow a new identity to combat internal conflicts over his identity. In other words, these individuals deliberately misrepresented themselves.

Clance and Imes Study

In the 1970s, Clance and Imes (1978) investigated impostorism in women, and coined the now current term "Impostor Phenomenon." Unlike early interpretations that impostors purposely misrepresented themselves, this new research suggested that impostors were not necessarily deeply disturbed, but rather perceived themselves as less than or different from their status or performance would suggest (Ahlfeld, 2009). Kets de Vries (2005) goes so far as to propose that, "To some extent, of course, we are all impostors. We play roles on the stage of life, presenting a public self that differs from the private self we share with intimates and morphing both selves as circumstances demand. Displaying a facade is a part and parcel of the human condition" (p. 10).

According to Birett (2007), to fully understand the concept of the phenomenon, it is necessary to understand context. Clance & Imes (1978) specifically did that. They

studied over 150 high-achieving women, all university students and faculty. The sample included students and faculty from two universities and other female professionals in varied fields. Specifically, from a private mid-western institution there were 95 undergraduates and 10 faculty members. The study also included 15 undergraduates, 20 graduate students, and 10 faculty members from a large southern urban university. Additionally, the study included six medical students from northern and southern universities and 22 female professionals working in law, social work, nursing, and teaching.

The study itself took place in clinical settings with Clance and Imes. The participants were predominately white, middle- to upper-class women between the ages of 20-45 and had earned degrees. These women had achieved high standardized test scores, or received professional recognition, yet did not experience feelings of success. They were afraid they were "impostors" who did not belong "here with all these bright, competent people." (Clance & O'Toole, 1998, p. 1). Since attributing their success to luck, hard work, being in the right place at the right time, they feared being discovered (Clance & O'Toole).

Clance and Imes (1978) found that, although these women were extremely talented and accomplished, they were unable to internalize their successes. Despite achieving at high levels (professional, personally, and academically), these women experienced low self-esteem, and sometimes intense feelings of incompetence. Some were even afraid their true identity, that of a phony, would be uncovered by others. These women seemed possessed of the need to find any alternative reason, other than ability and talent, to explain their success. Those who experience IP do not fit into any

particular diagnostic category as their symptoms could include a combination of symptoms such as anxiety, depression, lack of self-confidence, and others.

Research stemming from the early 1980s has led to a greater understanding of the phenomenon. Those experiencing IP work extremely hard to prevent exposure of being unworthy or incompetent (Langford and Clance, 1993). Great effort is put into hiding feelings of intellectual inadequacies, wearing "masks" to further hide their incompetency or true identity. According to Clance (1985) the key to IP is the portraying oneself as a "phony" to hide, which results in impostors feeling like a fake.

Impostor Phenomenon Effects

Women with IP often worry too much about criticism and doubt their work and ability. For example, Maria Goeppert Mayer, the 1963 Nobel Laureate in Physics, was reluctant to publish her work because she feared her ideas were not original. Only after a brief letter was published in the Physical Review, the journal of the American Physical Society, did she submit her findings for publication. It was those later published works that won her the Nobel Prize (Birett, 2007). A more typical example of IP would be a high achieving student who feels like a fraud and thinks she was mistakenly admitted to the university honors program. Even if she believed she earned the ACT score to be admitted, she would conclude that score was a fluke or the result of extreme luck.

Traditionally, an *impostor* is described as someone who pretends or utilizes deception for the purpose of personal gain. Impostor, in this case, refers to someone that pretends or feels they do not belong or are not worthy of their position (Clance, 1985). The phenomenon is not a matter of lack of ability, false modesty, or false identity. It is

not a pathological disease. Rather, IP is a condition that interferes with psychological well-being that prevents someone from embracing success, praise, or recognition of a job well done. In essence, the impostor is unable to accurately self-assess her own performance (Kets de Vries, 2005; Want & Kleitman, 2006). Harvey and Katz (1985) characterized IP as an individual's belief that he or she was fooling others, might be exposed as a fraud, and unable to internalize that success was due to ability, intelligence or skills.

Impostor Phenomenon Characteristics

Clance (1985) suggests six major characteristics can be identified in individuals with Impostor Phenomenon: (1) the Superwoman/Superman complex, (2) fear and guilt of success, (3) the need to be special or the very best; (4), denial of competence and discounting praise, (5) fear of failure and (6) the impostor cycle. The degree to which these characteristics exist are varied. Not all characteristics exist, however according to Clance, to identify someone as an impostor a minimum of two should be found.

The Superwoman/Superman complex. The impostor has a need to be better than his or her peers do. Impostors are often at the top of their class in high school. At college or university, these individuals often encounter students that are more talented. No longer being the best, impostors often suffered stress and increased anxiety about performance (Clance, 1985; Sakulku & Alexander, 2011). **S**upermen and superwomen strive for perfection. They may set unrealistically high expectations and expect flawless performances in every aspect of their lives. Harvey (1981) found that honors students more likely than average students to suffer some degree of impostor phenomenon. When unable to fulfill their unrealistically high goals (especially when entering post-

secondary education), impostors feel like failures, are overwhelmed and disappointed, and reinforce their own perceptions of inferiority (Clance, 1985; Sakulku & Alexander, 2011).

The need to be special, to be the very best. For the impostor, there is a need to be the very best when compared to their peers. Impostors may have been at the top of the class during high school years, however upon arriving to a college/university they realize there are many other talented students and their own talents and abilities are no longer atypical. The impostor concludes they are not smart when they are not the very best (Clance, 1985; Sakulku & Alexander, 2011).

Fear and guilt of success. When given a task, impostors experience high levels of anxiety, and increased fear – both fear of failure but also fear of success. This fear seems rooted in two issues – conflicting gender roles, and lack of confidence. In the 1970s, Horner (1972) identified the "fear of success syndrome" as anxiety and guilt experienced by women who equated professional success with loss of femininity and attractiveness, and the diminishing of traditional relationships. As a result, some women would defer professional success for less ambitious and more traditional feminine roles.

Research that is more recent finds women more likely to fear their abilities to reach professional goals. Sherman (1988) defined this lack of self-esteem interchangeably as "fear of success" or "impostor phenomenon." This lack of self-efficacy was found more prevalently among women than men in a study in which mathematical confidence was measured. While men overstated their abilities, women underestimated their skills (Sherman, 1979). As a result, women were less likely to promote themselves for tasks requiring high skill level.

Impostors often feel guilty about success. Clance's (1985) research suggested that women especially feared their personal success would interfere with their relationships with the men in their lives. Some men also experienced guilt of being more successful than their fathers are. Clance (1985) concluded, "If impostors perceive their success as atypical of their family, race, sex, or region in which they live (they) may experience guilt about those successes" (p. 28).

Fear of failure. When assigned an achievement related-task, levels of anxiety increase due to thoughts of possible failure. Impostors will tend to overwork on a task to reduce the risk of failure and wards off feelings of shame and humiliation (Clance, 1985; Sakulku & Alexander, 2011).

Denial of competence and discounting praise. Impostors are often unable to process success, and as a result, positive feedback and hard evidence of successes are discounted. In fact, impostors might seek or accept any proof of their unworthiness (Sakulku & Alexander, 2011). During counseling, Clance (1985) witnessed examples of individuals distorting or discounting praise, leaving the door open for feelings of inferiority.

The Impostor Cycle. Despite positive feedback about their accomplishments, the impostor denies that their success is related to their own skills and/or abilities. Often, the impostor will procrastinate when assigned an achievement-related task and then be forced to finish tasks, assignments, or projects quickly. Upon completion, she feels that she has once again fooled everyone (Birett, 2007). Persons with IP may also over-prepare or overwork (Henning, Ey & Shaw, 1998). In this case, success is attributed only to hard work, not accomplishment. Either way, success is often

attributed to luck, a sense of relief is generally short lived, and a fear of failure soon returns (Clance, 1985).

Some impostors may procrastinate, others work continually. Yet, each new task perpetuates a self-reinforcing cycle (Sakulku & Alexander, 2011). The continual fear of being exposed brings new potential for failure, ongoing stress, and a cyclical response to potential discovery as a fraud (Harvey & Katz, 1985). A number of empirical studies have documented the extreme work habits of IP sufferers. A significant positive correlation between IP and time spent on academic endeavors was reported by King and Cooley (1995).

Impact of the Phenomenon

IP leads to low self-esteem and possible social anxiety; a persistence sense of being a fraud; and a belief that any achieved success was by chance (Clance & Imes, 1978). These problems are amplified by a desire for perfection (Harvey & Katz, 1985). An impostor may procrastinate (Birett, 2007), and despite completing tasks successfully, may have difficulty accepting positive feedback, remembering only negative feedback (Roskowski, 2010). The negative impact of IP may be behavioral, physical, and emotional.

Physical Characteristics. Physical symptoms of IP have been found to include headaches, stomach aches, difficulty sleeping (insomnia), and eye twitching (Clance, 1985). In addition, it has been found to trigger illness and debilitating emotional trauma and leads to residential problems for loved ones (Ahlfeld, 2009; Clance, 1985; Harvey & Katz, 1985). Steinberg (1986), reported clients sought relief from conditions including migraines, back pain, and eczema.

Emotional Characteristics. Overwhelmed, tense, depressed, frustrated, and dissatisfied are emotions identified with IP sufferers (Clance & Imes, 1985). Additional effects of IP include anxiety, emotional exhaustion, decreased motivation and lack of self-confidence (Ahlfeld, 2009; Chrisman et al, 1995; Clance, 1985; Bernard et al, 2002). Significant decrease in life satisfaction is experienced amongst women experiencing IP for extended periods of time (Clance, 1985). Reis (1998) found that women at almost every age experienced insecurities and expressed more doubt about their abilities, compared themselves to others more, and criticized themselves and others more. Impostors are prone to shame, humiliation and negative social emotions (Clance, 1985). Clance and Imes (1985) found that unfounded conclusions regarding abilities lead to the development of irrational behavior which, when combined with avoidance result in emotional symptoms. IP scores have been correlated in studies with symptoms of depression, trait anxiety and state anxiety (Holmes et al., 1993).

Reis' work also found that women were more like to withhold support from other women, which, in turn, maintains the feeling of being unaccepted. Due to the inability to internally process internal competence, impostors, look outward for constant feedback.

Behavioral Characteristics. Impostors employ interpersonal strategies to avoid any type of negative evaluation (Ahlfeld, 1996; Chrisman et al, 1995; Clance et al, 1995). Impostors have also been discovered to employ procrastination and other self-handicapping measures such as withholding ideas and opinions, opting to say what they feel others want to hear when in the presence of superiors and other colleagues (Clance & Imes, 1978; Cozarelli & Major, 1990; Cowman & Ferrari, 2002; Want & Kleitman,

2006), while also discounting personal success (Chrisman et al., 1995; Thompson, Foreman, & Martin, 2000). Impostors also use achievement striving as a means to earning recognition from others. Clance and Imes (1978) discovered that impostors will take advantage of social perceptiveness and charm to win over those who are important and exhibit patterns of seeking approval from authority figures, only to later discredit that person once approval has been given. If a person believed them to be intelligent, an impostor felt that person must be a bad judge. This resulted in a recurring cycle of validation and rejection.

IP sufferers may never achieve full potential and may purposely refuse advancement opportunities; they make faulty decisions and have the tendency to devalue their job performance (Clance et al., 1995; Ahlfeld, 1996; Kets de Vries, 2005; Chandler, 1998). Their lives are taken over by work-a-holism and perfectionism (Clance et al, 1995; Thompson, 1996; Ahlfeld, 2009).

Impostor Phenomenon in Women and Men

Clance and Imes (1978) found that primarily women suffered from IP. Later research, however, found that men also experience impostor feelings (Cozzrelli & Major, 1990; Harvey, 1981). Additionally, research increasingly reported that impostor feelings not only affected both men and women, but was also found widely in varied occupations (college students, academics, medical students, marketing managers, and physician assistants) and social and cultural settings (Sakulku & Alexander, 2011). Using the Harvey Impostor Scale, Topping (1983) found male professors were more likely to experience IP than their female counterparts. Topping also proposed female professors were more like to be impaired by IP due to the lack of mentorship and

encouragement to perform, which their male colleagues were more likely to receive. Studies by Langford and Clance (1993) also discovered that both men and women similarly experience IP, despite original finding of IP being a phenomenon only found in women due to stereotypical views of women being less competent than their male counterparts. Yet, more research has focused on women and IP and has influenced by the discussion of changing female social roles that led early studies on IP to focus on it as a gendered concept.

Gender and IP. In our society, women and men are commonly expected to behave differently, and conform to varying extent to social norms. Traditionally, characteristics such as independence, assertiveness, and self-confidence were characteristics associated with men. Historically, critics felt that women who seek further education would have a negative impact on society as whole. Charles W. Eliot, President of Harvard College and noted leader of education reform declared his views on colleges for women in his 1899 inauguration speech of the new president of Wellesley:

> *Women's college should concentrate on an education that will not injure women's bodily powers and functions. It remains to demonstrate what are the most appropriate, pleasing, and profitable studies for women, both from the point of view of the individual and the point of view of society; and this demonstration must be entirely freed from the influence of comparisons with the intellectual capacities and tastes of men. It would be a wonder, indeed, if the intellectual capacities of women were not at least as unlike those of men as their bodily capacities are (Horowitz, 1995, p. 6).*

Women were thought to be too weak to endure the strain of higher education. "Women were thought to be frail...overstudy would surely give them brain fever! And should they manage to survive college, their children would be sickly, if they were able to have children at all" (Newcomer, 1959, p.28). Others argued should women's colleges be established, the number of marriages and family size would decline and this would be detrimental to society. Newcomer later added, "Most of the opposition was less concerned with whether education was good for women than whether educated women were acceptable to men themselves" (Newcomer, 1959, p.28).

Even in contemporary settings, women often find themselves defending their image as feminine. Clance, Dingman, Reviere, and Stober (1995) argue that women often internalized concepts of ideal femininity that are inconsistent with their everyday lives, thus propelling them to feel like impostors. Studies from the 1970s often emphasized the disconnection between traditional gender expectations and modern positions of women in the workplace, and that women were often "torn between autonomy and femininity and between being a nurturer and being independent" (Clance & O'Toole, 1998, p. 2).

The fight and conflicts around participation in modern society included women entering higher education at dramatically greater rates. Education, in this sense, was perceived as a social destabilizer. Society expected women to be home maintaining the family.

Although these traditional views have largely disappeared and women are often the majority on college campuses, researchers emphasize that women generally remain caregivers and often view their value in terms of their ability to care for others. When

women seek out or are provided with opportunities, many are torn between doing for themselves or continuing to make themselves available to others which for many, leads to an internal struggle and feelings of guilt. In addition to being torn between doing for others, it has been suggested that women must also choose between marriage and a career. In the book *Women of Academe: Outsiders in the Sacred Grove*, Aisenberg and Harrington (1988) present the "marriage plot" and the "quest plot" and their oppositions faced by women with doctorates. Internal barriers and personal priorities have been identified as reasons that prevent women from internalizing their successes (Birett, 2007). Clance and Imes (1978) also believed success could be contraindicated by societal expectations and one's own internalized self-evaluation. Thus, leading IP sufferers to find countless means of denying external evidence that contradicts their beliefs.

Familial Influences. Clance and Imes (1978) research was the first to suggest early experiences within the family as the source of IP. Originally, two scenarios where proposed. The first, rigid roles and labels have been placed on the young child by the family which promotes impostor feelings. In the second scenario, impostor feelings resulted when discrepancies exist between the child's personal self-view and the identity forced upon the child by the family. In the first case, a child grows up with a sibling or close family member who is believed to be the most intelligent family member. The child learns, over time, her level of intelligence is not valued. However, sources outside of the family, such as teachers, would have acknowledged her abilities. The child is confused by these conflicting messages and impostor feelings begin to emerge. Although the child believes her family, there is a desire to prove them wrong. Although

the child can perform and achieve at the same rate as her sibling or other family member, the family fails to recognize her achievements. Ultimately, the child continues to achieve, however she does not develop a healthy internal sense of personal competence.

The second scenario is the opposite of the first, in that the child's intellect is overly praised by the family. The family shares how the child has mastered a number of skills with great ease. The child, over time, begins to believe intelligence is equated to learning and mastering material with little to no effort. Unfortunately, the child is soon faced with challenging tasks that require more time and added effort to master; the child then begins to doubt the family's beliefs and impostor feelings emerge because she believes she should not have to try so hard to be successful (Clance & Imes, 1978)

In the years following, Clance and Imes (1985) proposed four key family elements related to achievement, or lack thereof, that may also contribute to IP: (1) as children, they believe their talents are not typical for their race, family or gender; (2) feedback from teachers, peers, and neighbors are inconsistent with that of family; (3) accomplishments and talents are not recognized or celebrated by family and; (4) family members convey intelligence and success should come easily and with little effort. It is possible for the impostor to have experienced one or more of these four factors. Although each of these elements have been confirmed as important through clinical experiences, empirical research has only confirmed the first three elements (Bussotti, 1990; Harvey, 1991).

Similarly, King and Cooley (1995), found weak, yet positive, relationships between impostor fears and family orientation emphasizing achievement value and

competition. King and Cooley (1995) conducted a study measuring the relation between achievement and development of impostor fears amongst 127 undergraduate students (75 females and 52 males) who reported higher high school grade point average and large number of hours spent with academic study. Greater family achievement orientation was found to be associated with higher levels of IP. According to this study, this greater level of IP was associated with higher grade point averages and time spent on academic studies in females versus men. King and Cooley suggested the method of delivery of messages in regard to achievement values might play a vital role in the development of impostor fears.

The family may contribute to impostor feelings in the following ways: a family does not recognize the academic intelligence or achievements of a young girl. Intelligence is not integrated into her self-concept. As a young woman, she displays intelligence; however, she is likely to distort these feelings to maintain congruency with her sense of self. A task may be accomplished, but the method of which it was achieved will be misinterpreted. Hard work or the leniency of the professor may be credited for her success. Due to the young woman's family system she has learned to devalue her own abilities (Birett, 2007).

Bussotti (1990) investigated the impostor's family background and focused on the family environment, the family member relationship, and family structure using the Family Environment Scale, which assesses the social environment of the family, relationships between family members, and the family's organizational structure to measure family functioning. The study consisted of 302 students found that scores from the Clance Impostor Phenomenon Scale (CIPS) were negatively related to the family

Cohesion and Expressiveness subscales and positively correlated with the Family Conflict and Family Control subscales of the Family Environment Scale. Results further showed impostors were more likely to perceive lack of support, lack of communication, and lack of appropriate emotional expression within family.

Bussotti's (1990), research into family role assignments found impostor feelings were highly correlated with the need to please others. It was also suggested that families in which the child experienced high levels of family control, conflict, and expressions of anger resulted in a lack of individual development. These individuals seek validation, lack a sense of identity, and are in danger of impostor feelings.

Sonnak and Towell (2001) examined the relationship between parental rearing styles and the CIPS in 117 undergraduate students. Sonnak and Towell found perceived parental control was weakly correlated with impostor fears, while perceived parental care was inversely related. It was concluded that parental over protection was a factor in the development of impostor fears.

In 2006, Want and Kleitman replicated Sonnak and Towell's (2001) study. This study explored the impostor's perception of their mother and father's rearing style in 115 individuals with varying backgrounds. The results were consistent with Sonnak and Towell's (2001) findings that parental overprotection was a predictor of impostor fears. Impostor fears were weakly correlated with high levels of control and domination of both mother and fathers. There was a moderate inverse relationship discovered between impostor fears and parental care of fathers.

Societal & Cultural Influences. As previously mentioned, unlike men who attribute success to inherent qualities, women have the tendency to project outwardly.

Success is not attributed to skill or competence (Clance & Imes, 1978). Clance & Imes (1984) postulated women's impostor feelings were based on societal expectations. IP sufferers may not have had experience with or opportunities to observe the benefits of having power. Nor may they have been assured they would be accepted should they somehow become powerful.

Harvey (1985) suggested that IP is related to "how you feel about a particular role you are playing" (p. 5). Referring to the notion that IP is provoked by the perceptions that the role an individual is playing is inconsistent with that of one's self point of view. This may occur when one believes his or her vocation is atypical for their gender or ethnicity such as a female holding a position in a male dominated field. Harvey (1985) also found that IP could be brought about by taking on new and unfamiliar roles as when an individual is promoted unexpectedly to a new role and are now in the position of authority or that of an expert. It is suggested that the adjustment period is when people are subject to experiencing feeling like an impostor. In the instances previously described, being an impostor is due to feelings of inauthenticity in one or more of the new roles that have been taken on.

According to Zorn (2005), a course director in philosophy at York University, there are factors in today's culture of education itself, which contribute to the feelings of IP within women. These include aggressive competitiveness, disciplinary nationalism that is described as fields of highly specialized studies that do not value interdisciplinary work, scholarly isolation, valuing of product over the process, and lack of mentoring. This study suggests that historical low expectations of women, familial

elements, and the culture of educational institutions might affect the female first-generation college student experience.

Personality Factors. According to Clance & Imes (1978), perfectionism was a theme associated with impostor feelings. IP sufferers think anything less that perfection is unacceptable. The impostor has a tendency to set extremely high goals and unrealistic standards for self-evaluation and feels as if she should meet and/or exceed these goals 100% of the time. In 2006, Ferrari and Thomson discovered that perfectionism and the need to avoid coming across as imperfect were the best predictors of IP amongst undergraduates There is a need to be the best, to be flawless at all times and will overwork to achieve. The tendency to disregard positive feedback, yet maintain high standards for self-evaluation are actions consistent with perfectionism (Sakulku & Alexander, 2011). In addition to perfectionism, there is a conflict between the need for power and the need for affiliation with others (Imes & Clance, 1984).

Impostor Phenomenon in Students

Instances of the impostor phenomenon in higher education have been documented in a number of articles and studies throughout the past 20 years. This research has indicated there are IP tendencies found in numerous student populations both graduate and undergraduate, as well as, within faculty and staff members (Parkman, 2016). At the undergraduate level, IP has been identified in numerous disciplines including psychology (Ferrari & Thompson, 2006), the health sciences including: medical, dental, nursing, and pharmacy students (Henning, Ey & Shaw, 1998), and engineering (Felder, 1998). Gibson-Beverly & Schwartz (2008), identified IP feelings in graduate studies in psychology and doctoral programs.

Gibson-Beverly and Schwartz (2008) found students whose self-esteem is ties to academic success are more prone to experience stress and depression. IP has the ability to take over all aspects of one's life, especially in the areas of academic and career development. IP influences the perception of accomplishments and appears negatively correlated with interpersonal flexibility, locus of control, overall well-being, and confidence in one's own intellectual ability.

Researchers have discovered through studying the relationships between IP and mental health in student populations have found IP to be a predictor of mental health (Parkman, 2016). This includes high correlations with anxiety (Clance & O'Toole, 1987, Cromwell et al., 1990, Cusak et al., 2013; Sonnack and Towell, 2001; Thompson et al., 1998); depression (Clance & Imes, 1978; Harvey & Katz, 1985; Thompson et al., 1998); psychological distress (Henning, Ey & Shaw., 1998); and minority student stress (Cokely et al., 2013).

According to Studdard (2002), younger individuals are more prone to experience IP, while decreased impostor feelings are found in older students as they gain academic experiences in their programs (Harvey & Katz, 1985). However, Studdard did identify non-traditional female students as the exception. Similarly, Valerie Young (2011), author of *The Secret Thoughts of Successful Women*, found there are non-traditional students, too, who experience IP when returning to the classroom. "Impostors who return to college in midlife have been known to wonder out loud if perhaps their professors aren't just taking pity on them. Knowing they're trying to juggle kids, a job, and school they suspect that their professors are intentionally going easy on them." (p. 19). This student population is challenged daily by stereotypical beliefs that

they should be home nurturing and caring for others rather than seeking careers or academic success. For the non-traditional impostor, balancing multiple roles exacerbates feelings of IP. Reis (2002) suggested reduced confidence and perceptions of ability is caused by the inability to focus on one specific role due to the need to balance multiple roles.

IP and Academic Success. Research on undergraduate and graduate students has shown vulnerability to experiencing IP (Clance, 1985). For example, theoretical (Clance & Imes, 1978; Studdard, 2002) and empirical research (French, Ulrich-French & Follman., 2008; Harvey, 1981; Henning, Ey & Shaw., 1998) have linked student status and higher education in the sciences and helping professions with IP. French and colleagues (2008) found IP scores were negatively correlated with levels of self-efficacy, interest, performance, and retention in science, technology, engineering and mathematics among School of Engineering students. Low levels of self-efficacy and IP were also associated with feelings of incompetence and high self-doubt as well as low performance and persistence in those areas (French et al., 2008).

Positive correlations have been documented between IP and academic success (Harvey, 1981), evaluation anxiety (Cusak, Hughes, & Nuhu, 2013); Thompson et al., 1998), neuroticism (Bernard et al., 2002), achievement orientation (King & Cooley, 1995), and perfectionism (Cusak et al., 2013; Ferrari & Thompson, 2006). According to Cozzarelli and Major (1990) undergraduate college students with IP, tend to feel more anxious prior to exams and have the self-expectation of performing more poorly than their peers who do not experience IP. Other studies have suggested that those experiencing IP have greater concern for mistakes, overestimate the frequency of her

mistakes, experiences less satisfaction with performance and feels less confident about her performance (Gibson-Beverly & Schwartz, 2007).

Academic dishonesty (Ferrari, 2005), academic self-efficacy (Thompson et al., 1998), and self-esteem (Cusak et al., 2013) were negatively correlated with IP. Ferrari's study challenged the notion that the fear of failure, high levels of stress, and continuous self-doubt may lead to behaviors such as cheating. The study of 124 undergraduate students concluded that impostors were less likely to conduct dishonest practices such as cheating and plagiarism when compared to other students. *The McGill Reporter,* published an interview with Diane Zorn of York University in which she shared the following observation, "Scholarly isolation aggressive competitiveness, disciplinary nationalism, a lack of mentoring and valuation of product over process are rooted in the university culture. Students and faculty alike are particularly susceptible to IP feelings" (McDevitt, 2006, p. 1).

Harvey (1981), suggests that differences in a student's parental level of education may worsen the degree of impostor feelings. Being the first in the family to attend a college and/or earn a college degree can lead to inner conflict or fear of rejection by the FGCS family. It has been documented that FGCS may receive little to no acknowledgement for their academic achievement should they surpass the level of success of their family members. (Harvey & Katz, 1985).

IP in Minority Students. To date, few studies examining IP in minorities have been published. According to the few studies that do exist have suggest that women of color may be affected by IP at a higher rate due to their double minority status. Within minority populations, research indicates that IP scores are higher. Cokely, McClain,

Enciso, and Martinez (2013) compared IP and minority student status stress across a sample of 240 students from African-American, Asian, and Latino backgrounds. African-American students were found to have the highest level of minority student stress amongst the three groups, while Asian-American students experienced significantly higher levels of IP. A strong correlation was discovered between minority student status stress and IP with psychological stress and psychological well-being. Findings established IP was the strongest predictor of mental and significantly predicted psychological distress and psychological well-being.

First-Generation College Students

When compared to students whose parent(s) have earned a college degree, first-generation student studies have found this population at greater risk due to their lower levels of academic and social integration (Terenzini, Springer, Yaeger, Pascarella & Nora, 1996; Pascarella et al, 2004). According to Ramos-Sanchez & Nichols (2007), difficulties experienced before and after entering college make them more susceptible to poor academic performance. In 2005, the National Center for Educational Statistics reported 24% of first-generation students enrolled at a four-year institution graduated with a 4-year degree.

First-generation students were four times more likely to leave a four-year institution after the first year when compared to non-first-generation students. These percentages illustrate persistence and level of degree attainment is much lower for first-generation students as opposed to non-first-generation students (Engle & Tinto, 2008; Deffendall, Knutson & Sacks, 2011). In 2006, the U.S. Department of Education reported approximately 30% of incoming first-year students were considered first-

generation. Of those, 24% (4.5 million) being both first-generation and low-income. At the national level, 89% of low-income first-generation college students drop out within six years of enrolling.

Davis (2010), following an analysis on demographic trends, projections show 40% of incoming first-year students would be first-generation. Should a study be conducted today Davis (2010), claims the figure could rise above the 50% mark.

Characteristics of the First-Generation College Student

First-Generation Defined

Defining what it means to be a first-generation college student is quite the task as admissions offices across the country use varying descriptions to define this population of students. Originally, first-generation was a concept used to determine eligibility for federally funded programs for low-income students in TRIO based programs such as Upward Bound, Talent Search, and Student Support Services. TRIO defines first-generation students as those whose parents have not obtained a postsecondary degree (Ward, Seigel & Davenport, 2012). However, other institution have developed other means for defining. For example, many studies conducted by the National Center for Educational Statistics (NCES) utilize a "tripartite scheme for defining FGCS which includes (1) first-generation students, (2) students whose parent(s) had some college, (3) students whose parent(s) had a bachelors or higher degree" (Chen & Carroll, 2005; Warburton, Bugarin, & Nunez, 2001).

The U.S. Department of Education, in the Higher Education Act (2008), defined a FGCS as, "an individual both of whose parents did not complete a baccalaureate degree; or in the case of any individual who regularly resided with and received support

from only one parent, an individual whose only such parent did not complete a baccalaureate degree." Others have defined FGCS as a student whose parents never enrolled in post-secondary education; students whose parents have no college experience (Choy, 2001); students whose parents have no educational experience beyond high school (Pryor et al, 2006).

Despite the numerous definitions, there is no right or wrong way to define first-generation. Although there is no clear definition, there are implications for administrators to create the best learning environment for first-generation students. Depending on definition used the number of students classified as first-generation will vary significantly. First-generation status referring to students in which neither parent nor guardian earned a four-year degree would increase the number of students identified at a given institution. Whereas, defining first-generation students as those which neither parent nor guardian attended college would lessen the number (Ward, Seigel & Davenport, 2012). For the purpose of this study, a first-generation college student is a student whose parents or guardians have not earned a 4-year degree.

Demographics and Socioeconomics

Terenzini, Springer, Yaeger, Pascarella & Nora (1996), suggests that first-generation students, are more likely to come from low-income homes, be from a racial/ethnic minority (Hispanic or African American), more likely a woman, perhaps older, and having children. Approximately, 30% of FGCS come from families with an annual salary less than $25,000 (Pryor et al., 2006). Terenzini et al (1996), also found FGCS were less like to participate in a university's honor program and were less likely to think faculty cared about teaching and his/her students. Further, studies have reported

first-generation students enroll in fewer credit hours, are less academically prepared, hold jobs, live off campus, participate in fewer campus activities and have fewer interactions with non-academic peers (Inkelas, Daver, Vogt, & Leonard, 2006). Reports show, 38.2% are Hispanic, 22.6% are African-American, 16.8% are Native American, 19% are Asian and 13.2% are Caucasian (Saenz et al., 2007). According to Thayer (2000), research has shown that first-generation students from middle-income backgrounds are less likely to experience difficulties with transitions to college than first-generation students from low-income families or families of ethnic minority groups. Research also shows that students who are first-generation and from a low-income family are less likely to graduate in four years (Thayer, 2000).

For first-generation college students, in particular, the decision to attend college is decided at an early age based on educational expectations that have been communicated to them prior to and during their high school years. By eighth grade, only 55% of students whose parents did not go to college aimed to earn a four-year degree; 91% of students whose parents attended college had aspirations of seeking a four-year degree. Upon entering twelfth grade, only 53% of FGCS expect to earn a college degree, while 90% of non-FGCS expect to earn a degree (Choy, 2001).

Pascarella, Pierson, Wolniak and Terenzini (2004), notes research on first-generation students has been on the rise in recent years, however has typically focused on characteristics, transition issues and persistence. Despite this rise in research, very little is known about the college experience or cognitive and psychosocial development of the first-generation student. What little research that has been completed has been

typically studied in men and undergraduate students; very few studies have specifically examined female first-generation college students. (Gibson-Beverly & Schwartz, 2008).

The limited time management experience, limited knowledge of college finances, limited budgeting skills, and lack of experience negotiating higher education politics adds to the long list of challenges and disadvantages the FGCS encounters (Thayer, 2000). Additionally, the many challenges experienced by a first-generation student attending a large, research institution with large class enrollment, and little interaction with faculty may be exacerbated (Stebleton & Soria, 2012). For first-generation students, these added stressors may be more severe.

Kuh (2008) noted that first-generation students along with groups of other historically-underserved students opt not to participate in "high-impact" practices. These high-impact practices include participating in learning communities, first year seminar courses, common reading experiences, study abroad, and others that enhance the overall undergraduate experience. FGCS students who do not have high-impact opportunities do not experience the benefits of social engagement or interpersonal connections (Stebleton & Soria, 2012). While the characteristics noted above are typical, it is not unusual to find students from middle- and upper-socioeconomic status to identify as first-generation as well (Ward, Siegel & Davenport, 2012).

Barriers to Academic Success

Lack of Familial Support

Fallon (1997) found that first-generation students had less family support than non-first-generation students. Parents of first-generation college students have little to no knowledge of how the higher education system operates and are unable to provide

assistance, unlike parents who have attended a college or university. Fallon also hypothesized that parents of FGCS were unable to provide their children with the guidance and mentoring needed in the college admission process. A report presented by Warburton, Burgarin, and Nunez (2001), corroborated Fallon's hypothesis when they reported first-generation perceptions of their preparation and basic knowledge about college was less and that there was a greater concern related to financial issues.

According to Rendon (1992) there is an ongoing negotiation between home and life resulting in "trying to live simultaneously in two vastly different worlds (p. 56)". First-generation college students experience feelings of being an outsider at school and at home. The transition from high school to college calls for the need to adapt to a new world. Although this is true for all students, FGCS lack the parental guidance, which would help them in the process. Parents of FGCS lack important information on the process of applying to college, when to take required entrance exams, and knowledge on how to apply for financial aid (Thayer, 2000). Inman & Mays (1999), state:

> *"First-generation students may be more likely to believe in the myth they can work long hours at college and a job and succeed in college. Their parents, unaware of the general education requirements of college, may even offer counterproductive advice regarding choices about which courses are necessary, thinking accountants do not need to take English*" (p. 2).

As FGCS learn more about the "alien culture" of new academic and social rules, many are now negotiating the issues of marginality as they begin to bridge home, family, old neighborhood and new college life in which they now belong to. As the FGCS female merges her old life and college life, she may struggle with feeling of

guilt, shame, and confusion when her role assignment (which had been tied to family values) begins to shift as college experiences begin to influence her new life (London, 1989; Orbe, 2004). Unfortunately, many first-generation college students will find it difficult to maintain relationships with family and close friends and may be perceived by others as changing or separating (Terenzini et al., 1996).

Lack of Social and Cultural Capital

Unlike non-first-generation college students and those from higher socioeconomic backgrounds, FGCS more often lack social and cultural capital necessary to guide and help them navigate the college experience. Social capital as defined by Pasco (2003, p.12) is the sum of resources that can be mobilized through membership in social networks of actors and organizations. The social capital gained from their memberships is different and often perceived less valuable.

> *"When students do not come from families or homes where this concerted cultivation takes place, both they and their parents are considered deficient, and that student has a harder time navigating the system. Working class families, though not for the lack of care and concern or hope for success, may not participate in these kinds of activities "(Weston-Serdan, 2009, p. 399).*

Social capital goes beyond success while attending college. It also includes student and parent knowledge have about making informed decisions, researching institutions, the application process, financial aid, expectations and basic college terminology. Additionally, how to persist when enrolled includes locating campus resources, developing relationships with faculty and staff, understanding the college

curriculum. This type of capital is key to the overall success of the first-generation college student (Ward, Seigel & Davenport (2012).

Many believe the lack of college related cultural capital impedes the success of FGCS. Cultural capital, as described by Bourdieu (1973), refers to the differences in educational outcomes of those of differing economic status. Cultural capital consists of information and beliefs needed to be successful are transferred by parents to their children over time through exposure to experiences, attitudes and language (Ward, Siegal & Davenport, 2012). Non-FGCS have the ability to seek guidance, navigate and understand college culture with the help of parents, family and friends. These individuals can impart a great deal of knowledge based on past college experiences. First-generation college students are not privy to the social networks, support systems, and tangible resources that serve as reference point and provides assistance (Davis, 2010; Pascerella et al, 2004). According to London (1989) the lack of social capital is a precursor to lower academic achievement and failure to earn a degree due to the lack of knowledge of what must be done to be successful both in and out of class.

Although many first-generation students may be categorized as underprepared and/or disadvantaged, many are able to be successful in college (Orbe, 2004). Students in general bring to college varying degrees of social and cultural capital and obtain more capital with college experiences. Academic and social engagements may help FGCS make up for the differences. Incremental gains in cognitive and non-cognitive outcomes from college experiences may act in a compensatory manner (Pascarella et al, 2004; Bourdieu, 1996; Coleman, 1987). Generally, however, FGCS social capital may not be of the type valued in IHEs (Yosso, 2005). As a result, FGCS possess lower

aspirations and self-efficacy when compared to non-FGCS, and that they feel marginalized and more inclined towards impostor feelings (Ward, Siegel & Davenport, 2012).

Inadequate Academic Preparation

As "educational pioneers" FGCS enroll in fewer credit hours and are less academically prepared particularly in reading, math and critical thinking. These students also have lower degree aspirations and are less likely to take advanced placement exams and entrance exams such as the ACT or SAT. If taken, these students more often score relatively low (Choy, 2001). Although first-generation students may be aware and take academic work seriously, they are more likely not know how best to study thus hurting performance (Pascarella et al, 2004; Terenzini et al., 1996).

Large public four-year institutions usually expect their incoming students to arrive knowing how to study. Often, study skills and other mechanisms to survive college are not taught, undermining first-generation student success (Davis, 2010). Many faculty are not aware that learning on one's own is a skill that could and should be addressed within the classroom setting, and that first-generation students may need additional guidance for the mental processes necessary to grasp complex and abstract ideas. It is useful for underprepared students if faculty are aware that first-generation college students may need to learn different skills than their non-first-generation peers.

Limited Financial Support

Due to financial constraints, first-generation college students are more likely to hold jobs (often more than one), live off campus, and participate in fewer campus activities. This further limits their social capital compared to other students who are

more immersed in college life (Choy, 2001, Inkelas, Daver, Vogt & Leonard, 2006; & Terenzini, 1996). Financial assistance, federal grants, and work-study assist first-generation students, but financial assistance is limited, and these low-income students often prefer to work additional hours than incur additional school debt.

Low income and ethnic minority students are less likely to attend and complete higher education. Those whose family taxable income for the preceding year did not exceed 150% of the poverty level as determined by the U.S. Department of Health and Human Services (2013) guidelines. Low income, for a family of four, is considered to be $35,325 or less.

Baum and Payea (2013) reported that high school graduation and college enrollment aligns with income. In the study, 82% of high school students from families with income above $90,500 graduated high school and enrolled in college. Only 65% of students from families earning $34,060 to $55,253 graduated and enrolled in higher education. An even lower 52% of students from families earning less than $18,300 graduated and enrolled.

It was also reported that within one year of graduation 70% of white high school graduates, 66% of black students and 62% of Hispanic students enrolled in college within one year of graduating from high school. Also noted, 73% of female high school graduates as compared to 64% of male high school graduates enrolled within one year of graduation.

Families from low-income backgrounds often rely on many family member to contribute financially to the household, thus more time is spent working and less time is dedicated to engaging with faculty, staff, learning communities, or other support

services. First-generation students may opt to delay enrollment and later find that they continue to struggle to balance work, life, academics and family obligations (Roman, 2007). In 2005, Chen and Carroll found 24% of working-class student at four-year institutions graduated within 8 years, compared to 68% of middle-class students that finished.

University Student Services and Support Programs

First-generation college students arrive to college with limited expectations and are often left to learn, on the fly, throughout their undergraduate experience (Pike & Kuh, 2005; Ramos-Sanchez & Nichol, 2007). First-generation college students are unaware of the array of campus services (academic and social support) available to help them be successful as an undergraduate student. Often, by the time services are discovered, it is too late or FGCS are hesitant to seek help and accept support (Timberlake, 2005). Therefore, it is imperative that FGCS feel welcomed at the start of their college career by support services and programs geared towards making their college experience successful (Pike & Kuh, 2005; Ramos-Sanchez & Nichols, 2007). Terenzini et al (1995), concluded, "One clear implication of this evidence [that describes the first-generation experience] is the need to smooth first-generation students' transitions from work or high school to college and to extend active targeted support throughout their first year, if not beyond" (p. 2).

Further, professional development opportunities focusing on the FGCS community can be an effective tool for helping administrators, faculty, and staff to better design and implement educational experiences for FGCS. Engle and Tinto (2008) state, "Institutions must provide professional development for faculty and staff to not

only help them acquire a broader range of pedagogical skills but also learn how to effectively use those skills with at-risk populations, including low-income, first-generation students" (p. 28).

Early Access to Information

First-generation college students could benefit greatly from the receipt of information regarding college opportunities, application processes and deadlines, and student financial aid earlier in high school (Choy, 2001). This information would provide enough background information to aid FGCS in the selection of an institution that meets their personal interests, needs, and abilities. First-generation college students, unfortunately, are known to select and attend less-selective colleges and universities, even when qualified to attend ones that are more selective. Research has shown that the decision to attend a less-selective institution will negatively affect the FGCS chances of graduating with a four-year degree (Pascarella et al, 2004).

Information shared with potential first-generation college students prior to or during high school can influence the decision on whether to apply to or enroll in college. According to Choy (2001), as early as the eighth grade, the educational expectations of a FGCS will vary based on the parents' education level. By the eighth-grade year, 91% of students whose parents attended college had aspirations of attending college, whereas only 55% of students whose parents did not go to college planned to earn a four-year degree. Additionally, as of 12th grade, 90% of students whose parents attended college expect to earn a four-year degree, while only 53% FGCS believe they will do the same (Choy, 2001). With targeted early contact, FGCS provided with

information related to college expectations, application and selection processes, and financial aid are more likely to apply to and enroll in a four-year institution.

Transition Programs

Transition programs are designed to aid FGCS in the smooth transition from high school to college. Summer bridge programs are offered during the summer months prior to enrollment as a full-time student; summer bridge programs introduce FGCS to the academic expectations and campus life. Students move onto campus early, enrolled in academic courses, and are introduced and connected to other students, faculty and staff members, and important campus resources early. Summer Bridge programs have typically been offered, nationally, to students who are identified as first-generation, low-income or underrepresented minority students. According to Barefoot and colleagues (2012), summer bridge programs are most successful when continued beyond the summer experience.

In addition, FGCS can be positively influenced in first year seminars and orientation courses, which Kuh (2008) has identified as the most beneficial programming as it brings together small groups of students together regularly and prepares students for the academic rigor and complexity of the campus' social environment (Ward, Siegel, Davenport, 2012). Similarly, Thayer (2000) cites structured freshmen year programs that include orientation as a best practice of high performing student support programs. Studies have found frequent and highly structured first-year seminars taught by faculty were instrumental in developing the structure and discipline FGCS needed to be successful during their first year (Darling & Smith, 2007; Engle,

Bermeo, O'Brian, 2006). Kuh (2008) cited writing-intensive courses as valuable experiences and should be factored into the first year transition experience as well.

Learning Communities

Living learning communities (LLCs) are specially designed learning communities with a residential component. According to Inkelas and colleagues (2006), LLCs are, "designed to create a sense of community that allows for greater faculty and peer interaction, increased opportunities for coordinated opportunities, and a socially and academically supportive residential living environment." Research has found that LLCs provide for a much smoother first year transition than residing in traditional residence halls or off campus (Inkelas, 2006). Living learning communities foster a since of community by offering common assignments, collaborative projects that brings together students in small groups. Group work helps students to learn how to work with others, solve problems in a team setting, as well as, learn to appreciate the perspectives of others (Huh, 2008).

Collaborative environments such as and LLCs can facilitate relationship amongst peer, help develop appreciate experiences, thus enhancing their transition to college (Engle, Bermeo, O'Brian, 2006). Additionally, the chances for students to gain access to higher education and performing to their potential is when they have a sense that others "like them" can fit into the environment and feel empowered to do what is necessary to be successful. Students' college success is dependent on feeling at home versus feeling like an outsider (Elmore & Oyserman, 2012).

Academic Advising

It is important for first-generation students to have a contact or confidant within the university. Academic advisors are in the position to serve in this capacity. They can use their one-on-one meetings to develop meaningful relationships and build a greater sense of trust. Advising that takes place throughout the FGCS academic career, pre-college through graduation, assists in navigating academic and campus cultures and lead to better understanding of academic expectations, degree requirements, campus opportunities, and support services (Darling & Smith, 2007). Advisers should also advise on the wide range of experiential and career options they may have limited exposure or may not have been encouraged to pursue (Ward, Siegel & Davenport, 2012). Due to the lack of college related cultural capital and limited access to challenging coursework in high school, FGCS are often not aware of the broad range of academic and career options available to them. Advisers must be aware of these issues and must be prepared to intervene and address.

Academic advising also serves as early academic warning programs. These programs aid in the early detection of behaviors (absences, missing or incomplete assignments, poor exam scores, etc.) that could result in academic difficulty for FGCS. Advisors can use the information provided by faculty to guide FGCS to academic support systems such as tutoring, the academic writing center, and instructor office hours for additional support (Darling & Smith, 2007). Davis (2010) states:

> *"A superficial understanding of many elements of the college experience is characteristics of first-generation college students, which makes it imperative that college officials, especially academic advisors, treat first-generation*

students differently from their non-first-generation counterparts, and from low-income students as well, when it comes to academic advising and planning" (p. 44).

Co-Curricular Experiences

Co-curricular learning opportunities can be especially beneficial to the first-generation college student. For the purpose of this study, co-curricular experiences include undergraduate research, internships, education abroad and student exchange, and community service. Co-curricular learning experiences provide learning experiences outside of the traditional classroom setting. These experiences include field-based activities, community partnerships, and applying knowledge to real-life situations (Kuh, 2008). Experiences such as undergraduate research promotes student-faculty interaction (Barefoot, et al., 2012). Education abroad, as well as, student exchange programs can benefit FGCS, especially those from rural areas, as they learn how to interact with diverse student bodies on different college campuses while encouraging FGCS to explore new perspectives, culture, and life experiences on their own (Engle et al, 2006; Kuh, 2008).

Financial Aid and Student Debt

Often, FGCS make fiscally conservative decisions when making college choices, opting to attend lower cost institutions. According to Engle & Tinto (2008), FGCS and low-income students pay less to attend college than their higher income peers. Because of need, FGCS overall receive slightly more financial support and loans than wealthier students resulting in a shortfall of approximately $3,600.00 after loans. Institutions may make special efforts to admit lower income students, but most aid

packages are merit rather than need based, leaving poorer students with a relatively greater debt. Goals to provide access for low income students has not been balanced by Federal Pell Grants or other financial aid, resulting in increased unsubsidized loans. As a result, students with limited support often choose to work more hours rather than take on additional debt to pay for school (Engle & Tinto, 2008; Davis, 2010).

The more financial aid (including loans) a FGCS receives, the more likely that student will persist. Research has shown that first-generation students are averse to debt and avoid loans or any type of accumulated debt. They are less likely to have credit cards and less likely to seek financial help from family members for the fear of placing undo financial burden on others. At the same time, many FGCS fail to seek additional financial aid. They do not understand the details involved with the process of how financial need is determined or how it is distributed, thus reducing possible support, and potentially reducing likelihood of success (Davis, 2010; Ward, Seigel & Davenport, 2012).

The lack of understanding related to borrowing money should be addressed at the institutional level. The financial aid a first-generation student receives, the more likely that FGCS will persist (Ward, Seigel & Davenport, 2012). Ultimately, institutional retention efforts such as support services, that seek to retain and graduate FGCS must utilize a multifaceted approach and acknowledge the special challenges, needs, and backgrounds of these students (The Pell Institute, 2011; Thayer 2000).

Theoretical Framework

Clance and Imes' (1978) original premise was that IP was a phenomenon that occurs in individuals who possess chronic feelings of phoniness, despite being generally

hardworking and competent. These individuals are become trapped in a vicious cycle in which rather than building self-esteem, each victory or success is dismissed, and, immediately followed by fear of failure for each new task or challenge (Ahlfeld, 2009; Harvey & Katz, 1985). Theories as to how IP develops point to gender, and familial, social, and cultural experiences as major influences. The historical disempowerment of women has led researchers to suggest IP to be more prevalent among females, especially those rising above their backgrounds, including those who are first-generation to attend university.

Therefore, the Empowerment Feminist Therapy (EFT) will be used to frame female, first-generation college students' successes and thoughts of failure. The theory aligns with a broad goal of feminist research that sought to understand how social norms, family traditions, and institutional traditions often fail to empower young women, and how acknowledgement of those shortcomings can reduce trauma and stress and increase individual resilience (Worell & Remer, 2003). Specifically, a goal of feminist research is to "broaden the knowledge base about women's mental health concerns" (p. 21), which supports the focus of college women, their identities, and personal empowerment, as well as, stress and adjustment issues. It also values the strength of women and the importance of examining life experiences in a cultural context.

Worell and Remer (2003), identified four major philosophies of the Empowerment Feminist Therapy: (a) personal and social identities are interdependent, (b) the personal is political, (c) relationships are egalitarian, and (d) women's perspectives are valued. First, the personal and social identities are interdependent

within the context of their environment. According to this principle, people live in multiple social locations which include gender, ethnicity, culture, social class, sexual orientation, age, physical abilities and characteristics, education, citizenship, language, and religion. A person's identity intersects with social locations within the socio-cultural environment. These intersecting social locations are a small part of a much larger context that places a person in the position of privilege (i.e. male, white, and heterosexual) and oppression (i.e. female, minority, homosexual) within a cultural context. Accordingly, individuals develop self and group awareness that leads to the development of personal values and meaning in which they view the world (Worell & Remer, 2003).

A second focus of EFT is the notion that the personal is political. The theory provides a means to consider gender-role stereotyping, institutionalized sexism, and issues of oppression. Individuals may otherwise be unaware of the impact of societal oppression and its effects on life choices, and the role of internal and external influences. Oppression, in general, can be defined as the lack of access to resources for those of subordinate groups. EFT provides a means to consider both large issues of unfairness and specifically how individuals may thrive or fail to succeed where underlying issues of discrimination, sexism, and gender-role stereotyping is present (Worell & Remer, 2003).

A third aspect of EFT is the consideration of relationships. This closely related to the notion of discrimination, that most relationships are not egalitarian, and that women and minorities do not generally have equal power or equal status to men and/or

majority groups. Feminist theorists stress the importance of relationships in which there is an equal balance of power and this equal power balance is ideal for social change.

A final and important aspect of EFT is the philosophy of voice and perspective, that women's perspectives are valued and need to be heard and understood, especially to consider how to make change and improvements. Historically, female ways of being have been discounted and devalued, that women are nurturers, not leaders (Worell & Remer, 2003). Increasingly, pervasive and subtle bias throughout society is being examined for what it is – discrimination and even abuse. As institutions begin to unravel their patriarchal cultures, the existing contributions and future potential of women will hopefully take center stage.

According to Empowerment Feminist Therapy, women are empowered through understanding social contexts of issues, the identification of strength and coping strategies, and having female perspectives honored. For this study, the first two principles will be discussed further to demonstrate their relevance and connection. In reviewing the first principle, personal and social identities are interdependent, we understand college campuses across the country are diverse and come with varying intersecting social identities. As IHEs become increasingly diverse there is an increase in the number of students from oppressed backgrounds (women, minorities, low socioeconomic status, gender preferences, and disabilities) as well. It is important to recognize the challenges these historically oppressed individuals will face while attending college can be quite difficult.

First-generation college students, specifically, are a group that needs to be studied further within their cultural contexts (Wallpe, 2010). First-generation college

students have a number of intersecting identities. Research has shown that first-generation college students are typically women, of minority status, and from lower socioeconomic backgrounds. Educational opportunities are often affected by social class thus limiting access to resources prior to and during college. Although colleges and universities are not in the position to change a student's socio-economic background or cultural ideologies affecting their experience, they can provide support services that promotes access, persistence, and degree completion (Pike & Kuh, 2005).

First-generation college students may benefit from being aware and have an understanding of their intersecting identities to fully understand their personal experiences. Intersecting identities such as ethnicity and socioeconomic status, for example, have a huge impact on financial resources. FGCS students do not fit the traditional mold of college students as they have suffered from many forms of oppression related to race, poverty and gender (Wallpe, 2010). Ultimately, as a result of this principle women will be in the position to increase her awareness of her social locations and identity within these locations, learn to accept and appreciate herself, develop the ability to cope comfortably and prize herself and the varying groups to which she belongs (Worell & Remer, 2003).

Within the second principle, personal is political, the environment (rather than intrapersonal concerns) is the main source of problems. The environment in this study is the college campus. Female students, in particular, face pressures daily to be successful both academically and socially. This increased pressure to be successful prohibits them from functioning effectively in what is considered an oppressive environment.

Feminist empowerment helps resolve feelings of being different and works to replace feelings of powerlessness with strength and newly developed pride in the ability to deal with current and future challenges. An individual with resiliency has the ability to respond positively to increased stress and (perceived) negative life events with developed coping skills that allow for her to maintain her personal well-being and effective functioning. According to Worell & Remer (2003), empowerment can lead to improved life situations by focusing on coping strengths, positive outcomes and things that contribute to one's overall well-being.

In a cultural context, female students who are the first in their families to attend college, are typically from low socioeconomic backgrounds and have not been presented the same financial and educational opportunities as their non-first-generation counterparts (Choy, 2001) which are consistent to that of EFTs multiple, intersecting, and oppressed identities (Wallpe, 2010). Findings from this study could provide for a better understanding of first-generation college students experiencing IP and lead to the discovery of programs, student support services, best practices, and policies to help mitigate feelings of IP, thus leading to a positive college experience and increased retention rates.

Chapter 3

METHODOLOGY

Problem Statement

Numerous barriers obstruct the academic success at four-year colleges and universities by first-generation college students, especially when combined with the complexities of being female. Challenges of low self-esteem, additional responsibilities at home, combined with the development of the impostor phenomenon further complicates academic success at the university level. The impostor phenomenon (IP) prevents its sufferers from internalizing success (Clance & Imes, 1978; Kets de Vries, 2005; Want & Kleitman, 2006; Parkman, 2016).

Purpose Statement

The purpose of this study was to investigate whether the first-generation females experience impostor phenomenon. If so, to what extent do these students suffer from the phenomenon. This study also sought to determine whether differences in time on campus, race/ethnicity, parent level of education, or other aspects of academic experiences lead to manifestations of impostor phenomenon.

This study examined the prevalence of the impostor phenomenon on the educational experience of first-generation female college students enrolled at a four-year research university. Specifically, the study identified female first-generation students at a research university in a south-central state currently participating in first-generation scholarship programs and/or living learning community. This study included the distribution of a two-part survey completed anonymously on-line. The first section

of the survey contained demographic and family background questions. The second section included the Clance Impostor Phenomenon Scale (CIPS) survey. Responses to the surveys were analyzed quantitatively using SPSS statistical software.

Research Design

Research Questions

This study was guided by the following research questions:

1. What percentage of female first-generation college students suffer the impostor phenomenon?
2. For female first-generation college students who suffer the impostor phenomenon, what factors are most prevalent?
3. Are there differences in impostor phenomenon suffered by female first-generation college students between demographic characteristics: Specifically, (a) cultural or ethnic minority; (b) parents with less than a high school education; and (c) receive a Federal Pell Grant?
4. Is there a relationship between impostor phenomenon feelings suffered by female first-generation college students with academic factors? Specifically, (a) time in college or (b) grade point average.

Research Setting

For this study, female first-generation college students were solicited from a public four-year Research I institution boasting 16 colleges and professional schools offering 200+ academic programs. This university enrolls nearly 30,720 students of which approximately 23,000 are undergraduate students, with 46.5 % of the student population being male and 53.5% female. As of fall 2017, approximately 25% of the

first-year undergraduates enrolled have self-identified as first-generation college students; 54% of these first-generation students are female.

Subjects for this study were solicited from current first-generation scholarship participants and residents of a first-generation college student themed Living-Learning Program housed in a first-generation student services office established in 2011. This office is responsible for the oversight of several four-year scholarship programs that address the holistic development of FGCS throughout their undergraduate career, oversight of a living-learning community in conjunction with residence life, and secondary advising services specially designed to improve the graduation rates of first-generation college students. The overall mission of the office is to support first-generation students at the university from recruitment to graduation through research based programs, resources, high-impact practices, and campus-wide advocacy addressing the needs of and challenges faced by students who are the first in their families to attend college. Each scholarship program and the living-learning program participants utilizes similar selection processes and selection criteria including high school grade point average, ACT scores, financial need, and written essay. The goal was to recruit a small group of like participants representing differing areas (in-state, out-of-state, and international), academic disciplines and varying ethnic backgrounds.

Research Participants

A convenience sample was used to draw from a targeted group of first-generation college students. Subjects were solicited from current first-generation scholarship participants and past and present residents of a first-generation college student themed Living-Learning Program. Study participants were required to be

female, identified as first-generation (neither parent/guardian has earned a 4-year degree), at least 18 years of age or older, enrolled at the undergraduate level (freshman, sophomore, junior, senior) as a full-time student (12+ credit hours). Participants were in majors across academic disciplines, were of varying cultures/ethnicities, socioeconomic backgrounds, and were both in-state and out-of-state.

Data Collection Methods and Procedures

The method of data collection was a self-reporting survey. A demographic survey (Appendix A) developed with the assistance of the researcher's dissertation committee and the Clance Impostor Phenomenon Scale (Appendix B), developed by Pauline Clance were combined to create the Survey of First-Generation College Students (Appendix C), which was transcribed verbatim into Qualtrics, an online survey platform.

An anonymous link was generated with Qualtrics and distributed via email to approximately 205 potential participants on June 13, 2017. This email included an introductory message from the researcher, description of the research study, invitation to participate in the study, and copy of the informed consent. The survey concluded with a message thanking participants for their involvement in the study. A reminder to complete the survey was sent one week after the initial distribution. The data collection process was completed over the course of 14 days. There was no anticipation of psychological risk for the participants based on the brevity of the self-reporting survey and degree of anonymity provided. No financial incentives were offered for completion.

Data Collection Tools

The Survey of First-Generation College Students consisted of questions from a demographic survey and the Clance Impostor Phenomenon Scale.

Demographics Survey: A 16-question survey designed to collect information including age, major, ethnicity, parent/guardian information, and educational values.

Clance Impostor Phenomenon Scale (CIPS): A 20 item, self-report tool that measures fear of evaluation, feeling less capable than peers, fear that success cannot be repeated, feelings of inadequacy and self-monitoring behavior. The CIPS was used with permission from the creator, Pauline Clance (Appendix D).

Items on the CIPS are rated using a 5-point Likert scale from 1- "not at all true" to 5- "very true". The respondent's score is determined by summing her scores. Scores on the CIPS may range from 20-100. Statements on the CIPS include, "I'm afraid people important to me may find out that I'm not capable as they think I am," and "Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error." The survey was written in a manner to acknowledge success and minimize social desirability (Clance, 1985).

According to Clance, a score of 40 or less indicates low impostor characteristics, scores of 41-60 indicate a moderate level of impostor feelings, and scores of 61-80 indicate frequent impostor experiences. Scores above 80 indicate an extreme or intense level of impostor feelings. Clance has not provided supporting evidence for these ranges. Holmes and colleagues (1993) noted the use of a score of 62 to differentiate between non-impostors and impostors because this score resulted in one false positive and no false negatives. French et al (2008), however, recommend use of the total score

be used to represent IP because their factor analysis of the CIPS yielded an unclear factor structure.

Evidence of the CIPS validity has been correlated highly with other scales such as the Harvey I-P Scale and the Perceived Fraudulence Scale that measure similar constructs (Harvey 1981 & Chrisman et al, 1995). Chrisman et al (1995) studied 269 undergraduate students both females (69%) and males (31%) ranging in age 17-50. Discriminate validity found the CIPS accurately measured a construct different from that of instruments assessing depression, self-esteem, self-monitoring, and social anxiety. In addition to exhibiting evidence of validity, it demonstrated internal consistency with alpha scores ranging from .84 to .96 (Holmes et al.,1993, Chrisman et al, 1995, French et al., 2008,).

Data Analysis

Data analysis was carried out using SPSS statistical software. This section will discuss the analyses used to determine the reliability of the Clance Impostor Scale and address each research question.

Reliability

Reliability analysis using Cronbach's alpha internal reliability was conducted on the CIPS (Table 1). The reliability results for the CIPS was .92, which indicates excellent reliability. Guidelines suggested by DeVellis (2003) were used to determine the reliability rating. According to DeVellis: below .60 = unacceptable; .60-.65 = undesirable; .65-.70 = minimally acceptable; .70-.80 = respectable; .80-.90 = very good.

Table 3.1
Reliability Statistics

Cronbach's Alpha	N of Items
.923	20

Presence and Severity of the Impostor Phenomenon

Presence of the impostor phenomenon. The first research question asked, what percentage of female first-generation college students suffer the impostor phenomenon? Descriptive statistics were used to determine the percentage of students experiencing impostor feelings. The Clance Impostor Phenomenon Scale was scored by summing the 20 individual items to obtain a total score. Participants who score totaled 40 or less were considered to have few impostor feelings; participants with scores 41-60 were characterized with moderate IP; participants with a score between 61-80 were characterized as having frequent IP feelings; and a score of 80 or higher indicated frequent and intense IP feelings.

Prevalent characteristics of the impostor phenomenon. The second research question sought to determine the factors most prevalent among female first-generation college students that experience the impostor phenomenon. Descriptive statistics were used to determine the percentage of students experiencing impostor feelings using mean scores for each individual question of the CIPS.

Participant Background Characteristics

Participant Characteristics. The third research question asked, are there differencing degrees of impostor phenomenon suffered by female first-generation college students between demographic characteristics: specifically, (a) cultural or ethnic minority; (b) parents with less than a high school education; and (c) receive a Federal

Pell Grant? For this question, three independent sample t-test were conducted to determine whether there is statistical evidence showing the associated population means are significantly different.

University Experiences

Academic Factors. The final question sought to determine whether or not there is a relationship between impostor phenomenon feelings suffered by female first-generation college students with academic factors such as: (a) time in college (credit hours earned) or (b) grade point average (academic achievement).

Two bivariate (Pearson) correlations were conducted to determine whether a relationship exists between IP feelings and time in college as well as between IP feelings and grade point average.

Chapter 4

ANALYSIS AND RESULTS

Introduction

The purpose of this study was to investigate whether first-generation female students at a research university experience the impostor phenomenon, and, if found, to what extent these students suffer from the phenomenon. This study also sought to determine whether differences in time on campus, race/ethnicity, parent level of education, or other academic experiences correlated to more or less manifestations of impostor phenomenon.

Statistical Methods

A survey was distributed to approximately 205 first-generation female students, and a total of 63 were completed. Statistical analyses were completed by using SPSS statistical software for Windows. The sample population was described using measures of central tendency (mean), standard deviation, frequency, and percent for categorical scaled variables. Descriptive statistics were used to calculate results for research questions 1 and 2. Research question 1 was determined by percentage and research question 2 was answered using frequency. Research question 3 was answered using three independent samples t-test. Research question 4 was then answered by conducting two bivariate (Pearson) correlations.

Cronbach's alpha was used to measure the internal consistency reliability of the Clance Impostor Phenomenon Scale. The Cronbach's alpha for the Clance Impostor

Phenomenon Scale was 0.92. Therefore, the CIPS score had an excellent internal consistency reliability.

Findings

Survey Responses

The first section of the survey of first-generation college students contained 16 questions that collected information on each participant related to major, age, ethnicity, parent/guardian level of education and educational values. Additionally, participants were asked to share if they were eligible to receive a Federal Pell Grant, number of hours earned, and current grade point average.

Majors. Education and psychology at 14.2% and 11% respectively, were the most popular majors identified by the participants. Also listed were health related professions including health and human sciences, nursing, public health, psychology, neuroscience, kinesiology, dietetics, and dental hygiene. Helping professions included family studies, social work, and education were also identified as participant majors. Business fields of interest included accounting and finance, and hospitality business management. A complete listing of all majors identified can be found in appendix F.

Cultural/Ethnic Background. The participants ranged in age from 18 to 23 years old; mean age was 19.9. As seen in Table 4.1, the diversity of the scholarship recipients and living-learning community participants were limited. As anticipated, most of the participants identified as Caucasian/White (77.8%). Another 11.1 % identified as Latina/Hispanic, while Asian/Pacific Islander made up 4.8%. African-American participants made up 3.2%, and the remaining 3.2% of participants identified as "other" and specified as being of mixed race or bi-racial.

Table 4.1
Race/Ethnicity

	Frequency	Percent
Caucasian/White	49	77.8
Latino/Hispanic	7	11.1
African American/Black	2	3.2
Asian/Pacific Islander	3	4.8
Other	2	3.2
Total	63	100.0

Parental Education. Table 4.2 shows a majority of study participants (66.67%) reported their mother/female guardian had earned a high school/GED diploma. Another 14.29% reported their mother/female guardian had completed some college and 7.94% reported earning a 2-year degree. Four participants (6.35%) reported their mother/female guardian had an 8th grade or less education. A small percentage, 3.17%, indicated their mother/female guardian had completed some high school. One participant (1.59%) reported her mother/female guardian as having completed trade school. The majority of parent/guardians in this category have a high school/GED diploma or less education level (N = 48, 76%).

Table 4.3 shows that 57.89% of the participants reported their father/male guardian had earned a high school/GED diploma. Another 19.30% reported their father/male guardian had completed some college and 7.02% reported earning a 2-year degree. Four participants (7.02%) reported their father/male guardian had an 8th grade or less education while 8.77%, indicated their father/male guardian had completed some high school. Similarly, a majority of male parent/guardians have a high school/GED or less education (N = 42, 73.68%).

Table 4.2
Highest Level of Education Obtained by Female Parent/Guardian

	Frequency	Percent
8th grade or less	4	6.3
Some High School	2	3.2
High School Diploma/GED	42	66.7
Some College	9	14.3
2-Year Degree	5	7.9
Other	1	1.6
Total	63	100.0

Table 4.3
Highest Level of Education Obtained by Male Parent/Guardian

	Frequency	Percent
8th grade or less	4	7.02
Some High School	5	8.77
High School Diploma/GED	33	57.89
Some College	11	19.30
2-Year Degree	4	7.02
Other	0	0.00
Total	57	100.0

Participants were also asked to share level of education completed for parent/guardian not previously mentioned. Three individuals reported high school diploma/GED and one reported some high school in this category.

According to Harvey and Katz (1985) individuals who surpass their parents' level of education, specifically first-generation and low-income students, are at-risk for developing IP. In addition, Harvey (1981) suggests that differences in a student's parent level of education may worsen the degree of impostor feelings suffered.

Socioeconomic Status. Participants were asked to report whether or not they were Federal Pell Grant eligible. Eligibility is awarded to students demonstrating a high financial need based on the completion of the Free Application for Federal Student Aid

(FAFSA). Table 4.4 shows 71.43% of the respondents reported they were eligible to receive a Pell Grant, while 20.63% were not. Five of the respondents were not sure if they were eligible or not to receive.

Table 4.4
Are you Pell Grant Eligible?

	Frequency	Percent
Yes	45	71.4
No	13	20.6
Unsure	5	7.9
Total	63	100.0

Terenzini, Springer, Yaeger, Pascarella & Nora (1996), suggested that first-generation students are more likely to come from low-income homes. The FGCS, due to lower socioeconomic status, is more likely to receive financial assistance, federal grants and work-study. Approximately, 30% of FGCS come from families with an annual salary less than $25,000 (Pryor et al., 2006). Research also suggests that students who are first-generation and from a low-income family are less likely to graduate in four years (Thayer, 2000).

Familial Influences. When asked to what extent students anticipated graduating with a four-year degree, 93.44% of study participants felt “very likely”, 1.64% felt “likely”, 3.28% felt “unlikely” and 1.64% felt “very unlikely”. Responses to what extent did your family anticipate you attending a four-year institution included: 57.14% reported “very likely”, 33.33% were “likely”, 7.94 were “unlikely”, and 1.59% were “very unlikely”. In addition, 82.26% reported their family anticipated the participant would graduate with a four-year degree and 17.74% felt it was “likely”.

Study participants were also provided the opportunity to rate the likelihood of a sibling attending a four-year institution and likelihood that a sibling would graduate with a four-year degree. 48.15% of participants reported “very likely”, 24.07% reported “likely”, 18.52% reported “unlikely, and 9.26% felt it was “very unlikely” to attend a four-year institution. Similarly, 47.17% of participants reported “very likely”, 26.42% reported “likely”, 15.09% reported “unlikely” and 11.32% felt it was “very unlikely” a sibling would graduate with a four-year degree.

Hours Earned. The mean hours earned by participants was 73.70 (*SD* = 35.74). Hours earned ranged from 15-150. Most of the participants were seniors (42.28%) having earned 80+ credit hours; 29.31% were sophomores having earned 30-59 hours; 27.59% were juniors; the remaining 8.62% of the participants were first year students. According to Studdard (2002), younger individuals are more prone to experience IP; however, impostor feelings decreased in older students as they gained academic experiences in their programs (Harvey & Kat, 1985).

Achievement. The mean undergraduate GPA of the participants was 3.47 (*SD*=.42) indicating relatively high achievement. Two respondents omitted their undergraduate GPA from the survey. Two participants (3.27%) reported less than a 2.5 GPA, and eight (13.11%) earned a 2.5-2.99 GPA. Eighteen (29.5%) participants earned a 3.00-3.49 GPA. A majority of the participants, 33 (54.09%) reported a 3.5 or above GPA.

Analysis of Data

Presence of the impostor phenomenon. To determine the presence of the impostor phenomenon, I asked research question 1, what percentage of female first-generation college students suffer the impostor phenomenon?

Table 4.5 shows that participants responded to the CIPS accordingly: Few IP feelings, 6 (10%); moderate feelings, 19 (31.7%); frequent feelings, 27 (45%); and intense feelings, 8 (13.3%). The response rate was greater for those participants with frequent and moderate feeling of IP based on the CIPS. Table 4.6 shows that 54 (90%) of the survey participants met the criteria for experiencing moderate, frequent, or intense impostor feelings.

Table 4.5
Impostor Phenomenon Category

	Frequency	Valid Percent	Cumulative Percent
Low	6	10.0	10.0
Moderate	19	31.7	41.7
Frequent	27	45.0	86.7
Intense	8	13.3	100.0
Total	60	100.0	

Table 4.6
Impostor Phenomenon Frequency

	Frequency	Percent
No	6	10.0
Yes	54	90.0
Total	60	100.0

Factors related to the impostor phenomenon. The second research question sought to determine what factors were most prevalent for those participants experiencing impostor feelings. Table 4.7 shows the average score and standard

deviation for the most frequently answered questions on the CIPS. The questions are listed in descending order based on mean scores. This depicts the questions that were rated highest on the Likert scale of 1-5 when answered. Questions 1, 17, 19, 18, and 7 were the items with the highest individual means. These questions appear to relate to the fear and hesitation of potential performance and doing poorly.

Table 4.7
Impostor Phenomenon Item Means in Descending Order

	Question	N	Mean	Std. Deviation
1	I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.	62	3.85	.786
17	I often compare my ability to those around me and think they may be more intelligent than I am.	62	3.73	1.244
19	If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.	61	3.62	1.213
18	I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.	62	3.55	1.155
7	I tend to remember the incidents in which I have not done my best more than those times I have done my best.	61	3.51	1.247

Additional information regarding the CIPS survey item breakdowns are located in Appendix E, Tables 19-39.

Demographics and the impostor phenomenon. The third question sought determine if a relationship between demographic and background characteristics, specifically, (a) cultural or ethnic minority status; (b) parents with less than a high

school education; and (c) receipt of a Federal Pell Grant exist in those with impostor feelings.

Data collected from the race/ethnicity portion of the survey was used to complete an independent t-test, as seen in Table 4.8, to determine if differences in the impostor phenomenon differ between race/ethnicity.

Table 4.8
T-Test Impostor Phenomenon by Race

	Race	N	Mean	Std. Deviation	Std. Error Mean
Impostor Phenomenon Score	White	46	63.96	15.583	2.298
	Non-white	14	61.36	13.760	3.677

Independent-samples t-test were conducted to compare impostor feelings in Caucasian/White participants and Non-Caucasian/White participants. According to Table 4.9, there was no significant difference in the scores for Caucasian/White participants (M=63.96, SD=15.58) and Non-White/Caucasian participants (M = 61.36, SD = 13.76, t (58) = .56, p = 0.58. These results suggest that race/ethnicity does not have an effect on impostor feelings.

Table 4.9
Independent Samples Test by Race

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Impostor Phenomenon Score	Equal variances assumed	.857	.359	.560	58	.577	2.599	4.638

The following sections take a closer look at parent/guardian level of education. Tables 4.10 and 4.11 show independent-samples t-tests conducted to compare impostor feelings between mother/female guardians who had earned a high school diploma/GED or higher with those less than a high school diploma/GED. There was not a significant difference in the scores for participants whose mother/female guardian had earned a high school diploma/GED or higher (M = 58.37, SD = 14.30) and participants with a mother/female guardian with less than a high school diploma/GED (M = 64.87, SD = 15.16, t (1.43) = .63, p = 0.160. These results suggest that level of education does not have an effect on impostor feelings.

Table 4.10
T-Test Impostor Phenomenon by Female Parent/Guardian Parent Education Level

	Parent Education Level	N	Mean	Std. Deviation	Std. Error Mean
Impostor Phenomenon Score	High School or Less	46	64.87	15.164	2.236
	Some College or More	14	58.36	14.302	3.822

Table 4.11
Independent Samples Test Impostor Phenomenon by Female Parent/Guardian Education Level

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Impostor Phenomenon Score	Equal variances assumed	.231	.633	1.425	58	.160	6.512	4.571

Tables 4.12 and 4.13 show the independent-samples t-test conducted to compare impostor feelings with participants whose father/male guardian had earned a high school diploma/GED or higher with those less than a high school diploma/GED. There was not a significant difference in the scores for participants whose father/male guardian had earned a high school diploma/GED or higher (M = 63.37, SD = 15.83) and participants with a father/male guardian with less than a high school diploma/GED (M = 63.17, SD = (5.91), t (-.031) = .014, p = .951. These results suggest that level of father/male guardian education does not have an effect on impostor feelings.

Table 4.12
T-Test Impostor Phenomenon by Male Parent/Guardian Education Level

	Parent Education Level	N	Mean	Std. Deviation	Std. Error Mean
Impostor Phenomenon Score	No High School Diploma	6	63.17	5.913	2.414
	High School Diploma or Higher	54	63.37	15.833	2.155

Table 4.13
Independent Samples Test Impostor Phenomenon by Male Parent/Guardian Education Level

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Impostor Phenomenon-non Score	Equal variances assumed	6.366	.014	-.031	58	.975	-.204	6.556
	Equal variances not assumed			-.063	15.227	.951	-.204	3.236

Independent-samples t-tests were conducted to compare impostor feelings with participants who are eligible for a Federal Pell Grant and those not eligible for a Federal Pell Grant. Tables 4.14 and 4.15 show there was not a significant difference in the scores for participants eligible for a Federal Pell Grant (M = 63.37, SD = 15.83) and participants not eligible for a Federal Pell Grant (M = 63.17, SD = 5.91), t (-.031) = .014, p = .750. These results suggest that receipt of a Federal Pell Grant does not have an effect on impostor feelings. It is concerning to see there are students who are unsure of their Pell Grant eligibility status. This leads to the following questions: Why are they unsure; have these students purposely not applied due to special reasons; are these students missing out on potential funding by not applying if eligible?

Table 4.14
T-Test Impostor Phenomenon by Pell Eligible

	Are you Pell Grant Eligible?	N	Mean	Std. Deviation	Std. Error Mean
Impostor Phenomenon Score	Yes	42	64.83	14.978	2.311
	No	13	63.31	15.140	4.199

Table 4.15
Independent Samples Test Impostor Phenomenon by Pell Eligible

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Impostor Phenomenon Score	Equal variances assumed	.292	.591	.320	53	.750	1.526	4.765

Academic factors and the impostor phenomenon. The final question sought to determine if a relationship existed between impostor phenomenon feelings suffered by female first-generation college students with academic such as factors time in

college (hours earned) or grade point average (academic achievement). Results of a Pearson product-moment correlation coefficient used to assess the relationship between impostor feelings and credit hours earned is provided in Table 4.16. There was no significant correlation between the two variables, r = -.072, n = 55, p = 0.601.

Table 4.16
Correlation of Impostor Phenomenon Score with Credit Hours Earned

		Impostor Phenomenon Score	Total number of hours earned to date:
Impostor Phenomenon Score	Pearson Correlation	1	-.072
	Sig. (2-tailed)		.601
	N	60	55
Total number of hours earned to date:	Pearson Correlation	-.072	1
	Sig. (2-tailed)	.601	
	N	55	58

Table 4.17 shows a Pearson product-moment correlation coefficient was run to assess the relationship between impostor feelings and undergraduate GPA. There was no significant correlation between the two variables, r = -.010, n = 60, p = 0.941.

Table 4.17
Correlation of Impostor Phenomenon Score with GPA

		Impostor Phenomenon Score	Cumulative GPA
Impostor Phenomenon Score	Pearson Correlation	1	-.010
	Sig. (2-tailed)		.941
	N	60	60
Cumulative GPA:	Pearson Correlation	-.010	1
	Sig. (2-tailed)	.941	
	N	60	63

Summary of Findings

This study investigated the level and intensity female first-generation college students experienced the impostor phenomenon by using the Clance Impostor Phenomenon Survey (CIPS). Langford and Clance (1996) stated that the CIPS was created purposefully to measure suffering, experienced fear of failure, discounted recognition from others, fear of evaluation or feared inability to reproduce success. Additionally, the researcher sought to determine whether differences in time on campus, race/ethnicity, parent level of education, or other aspects of academic experiences led to manifestations of impostor phenomenon.

Research question 1 determined the percentage of study participants experienced impostor feelings. The CIPS discovered 90% of study participants experienced IP feeling with 31.7% experiencing moderate feelings and 45% experiencing frequent feelings. Of the 60 respondents, a total of 54 (90%) experienced moderate to intense feelings. Therefore, it can be said that female first-generation student do, in fact, experience impostor feelings on a regular basis.

Research question 2 identified the most prevalent impostor characteristics. For female first-generation college students who experience impostor feelings, the following five statements were most prevalent: "I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task"; "I often compare my ability to those around me and think they may be more intelligent than I am."; "If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact"; "I often worry about not succeeding with a project or examination, even though others around me have considerable confidence

that I will do well"; and "I tend to remember the incidents in which I have not done my best more than those times I have done my best." As previously mentioned, these statements appear to relate to the fear and hesitation of potential performance and doing poorly.

These are similar to Cozzarelli and Major's (1990) findings that undergraduate college students with IP tend to feel more anxious prior to exams and have the self-expectation of performing more poorly than their peers who do not experience IP. Previous studies have suggested that those experiencing IP have a greater concern for mistakes, overestimates the frequency of her mistakes, experiences less satisfaction with performance, and feels less confident about her performance (Gibson-Beverly & Schwartz, 2007).

Research question 3 sought to determine if there were differences in impostor feelings experienced by female first-generation college students between culture/ethnicity, parents with less than a high school education and receipt of a Federal Pell Grant. Reponses to the survey were provided primarily by Caucasian/White students. An independent t-test comparing impostor feelings in Caucasian/White participants and Non-Caucasian/White students found that race/ethnicity did not have an impact on the level of impostor feelings experienced. According to the limited number of studies that do exist in this area, women of color may be affected by IP at a higher rate because of their double minority status. Within minority populations, research indicates that IP scores are higher. For example, Cokely et al. (2013) found African-American students experienced the highest level of minority student stress amongst Asian-American and Latino students, while Asian-American students

experienced significantly higher levels of IP. These results conflict with the results of this study. This may be due to the low number of non-Caucasian/white student participants completing the survey.

The researcher also conducted an independent-samples t-test to compare impostor feelings between mother/female guardians who had earned a high school diploma/GED or higher with those less than a high school diploma/GED. There was not a significant difference in the scores for participants whose mother/female guardian had earned a high school diploma/GED or higher (M = 58.37, SD = 14.30) and participants with a mother/female guardian with less than a high school diploma/GED (M = 64.87, SD = 15.16, t (1.43) = .63, p = 0.160. These results suggest that level of education does not have an effect on impostor feelings.

A second independent-samples t-test was conducted to compare impostor feelings with participants whose father/male guardian had earned a high school diploma/GED or higher with those less than a high school diploma/GED. There was not a significant difference in the scores for participants whose father/male guardian had earned a high school diploma/GED or higher (M = 63.37, SD = 15.83) and participants with a father/male guardian with less than a high school diploma/GED (M = 63.17, SD = 5.91), t (-.031) = .014, p = .951. There was not a significant difference in the scores for participants whose father/male guardian had earned a high school diploma/GED or higher and participants with a father/male guardian with less than a high school diploma/GED These results suggest that father/male guardian level of education does not have an effect on impostor feelings.

Research conducted by Harvey and Katz (1985) discovered that individuals who surpass their parents' level of education, specifically first-generation and low-income students, are at-risk for developing IP. Therefore, it was surprising for the research to have found no differences. Clance and Imes' (1978) research was the first to suggest early experiences within the family as the source of IP. Originally, two scenarios in which rigid roles and labels have been placed on the young child by the family which promotes impostor feelings; impostor feelings result when discrepancies exist between the child's personal self-view and the identity forced upon the child by the family.

Research question 4 found there was no significant correlation between IP feelings and academic factors, specifically time in college (hours earned) and grade point average (academic achievement). Although King and Cooley (1995) found greater family achievement orientation was found to be associated with higher levels of IP. King and Cooley also found greater levels of IP were also associated with higher grade point averages and time spent on academic studies in females versus men.

Positive correlations have been documented between IP and academic success (Harvey, 1981), evaluation anxiety (Cusak, Hughes, & Nuhu, 2013); Thompson et al., 1998), neuroticism (Bernard et al., 2002), achievement orientation (King & Cooley, 1995), and perfectionism (Cusak et al., 2013; Ferrari & Thompson, 2006). Findings by Cozzarelli and Major (1990) show undergraduate college students with IP, tend to feel more anxious prior to exams and have the self-expectation of performing more poorly than their peers who do not experience IP.

Chapter 5

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

Discussion of Findings

Clance Survey, and Presence and Severity of IP

This research study set out to determine whether the impostor phenomenon, as defined by Clance and Imes (1978), is prevalent in female first-generation college students and if found, to determine to what extent students suffer from the phenomenon. Based on the current literature, it was anticipated that these female students would suffer differing degrees of impostor phenomenon during their undergraduate career. It was also postulated that some of these feelings of inferiority may be either exacerbated or alternatively alleviated based on the experiences these students have while at the university. Therefore, the research not only gauged students' self-perception of being "impostors", but also sought to understand whether field of study, years attending the university, extent of academic success, parental level of education, and socioeconomic status relate to students' overall self-esteem and belief in their own abilities.

Recent studies related to the impostor phenomenon have sought to understand the development and treatment of the impostor phenomenon; instrumentation and measurement scales; the relationships of IP with other constructs; and the presence of the phenomenon in individuals (Roskowski, 2010). As for first-generation college student studies, most have investigated academic persistence, adjustment to college rigor, and other factors that contribute to academic performance. Despite numerous studies, few have focused on non-academic personal factors that influence college

success, such as psychological well-being (stress, depression, and self-esteem) (Wang & Castaneda-Sound, 2008).

Some literature relates IP to first-generation college students, but there is limited detail on the extent of impostor feelings, with findings often based on anecdotal evidence (Davis, 2010). This study begins to shed light on the degree to which female first-generation college students' experiences impostor feelings. Additionally, this study confirmed that female first-generation college students do experience various degrees of the impostor phenomenon. Specifically, 90% of the survey participants met the criteria for experiencing moderate, frequent, or intense impostor feelings. This study also found that 45% of the participants experienced frequent impostor feelings as a current student. Clance (1985), used intensity as the measure to describe IP. The more frequent and intense the feelings, the more likely these feelings will affect an individual's daily life (Clance, Harvey & Katz, 1985). Despite the impact on daily functioning, IP does not mean there is an automatic connection to pathological problems (Clance. 1985), however the intensity and frequency noted previously are associated with other psychological problems such as stress, anxiety, and depression (Ross & Krukowski, 2003).

Survey participants responded highly to questions involving fear of not performing well, comparing oneself to others, and hesitation to celebrate accomplishments. Female first-generation college students experiencing IP believe that they are not intelligent and have managed to fool those around them; there is a deep fear that classmates, professors, friends, colleagues, and family members will discover they are impostors. In attempts to ward off feelings of shame and humiliation, potential

impostors will put forth Herculean effort and work long hours to reduce risk of failure (Clance, 1985; Sakulku & Alexander, 2011). Those impostors in this study that related with denial of competence or discounting praise, do so as they are unable to internally process success and accept positive feedback. For impostors, discounting these successes is easy and safe (Sakulku & Alexander, 2011). According to Clance and Imes (1978), "... these women find innumerable means of negating any external evidence that contradicts their belief that they are, in reality, unintelligent" (p. 2). Unlike their male counterparts, whose own success is due to a quality and/or ability they possess, women are more likely to project the reasons or causes for success to factors such as luck or chance (Clance & Imes, 1978).

The diverse range of academic disciplines matched those identified in previous studies, which included health sciences spanning medical, nursing, and pharmacy (Henning, Ey & Shaw, 1998), psychology (Ferrari & Thompson, 2006), and engineering (Felder, 1998). Other studies have connected impostor feelings to those undergraduate students in the sciences and helping professions (Clance & Imes, 1978; Harvey, 1981, Henning et al., 1998; Studdard, 2002; French et al., 2008). This study identified helping professions such as education and psychology at 14.2% and 11% respectively, as the most noted major of the participants which further validates previous claims. Also noted were students in medical and health related majors ranging from health human sciences, nursing, public health, neuroscience, kinesiology, and dental hygiene. This study also identified impostor feeling were experienced in other disciplines such as family studies, social work, and communication.

Student Background Characteristics and IP

First-generation college students face a unique set of familial, academic, social, and financial challenges upon entering four-year institutions of higher education. Although IHE's are better promoting access to college for FGCS, college success including retention, persistence, and graduation rates remains a problem. Similarly, despite the knowledge of disparities between first-generation college students' and non first-generation students', educational attainment may still be a challenge even with institutional support (Engle & Tinto, 2008; Pascarella et al., 2004).

Harvey and Katz (1985) reported that individuals who surpass their parents' level of education, specifically first-generation and low-income students, are at-risk for developing IP. Similarly, Harvey (1981) suggested that differences in a student's parent level of education may worsen the degree of impostor feelings suffered.

The findings of this study reported that 71.43% of the respondents were eligible to receive a Federal Pell Grant, while 20.63% were not. Five of the respondents were not sure if they were eligible or not to receive a Federal Pell Grant. Terenzini and colleagues (1996), suggests that first-generation students are more likely to come from low-income homes. The FGCS, due to lower socioeconomic status, is more likely to receive financial assistance, federal grants and work-study. Approximately, 30% of FGCS come from families with an annual salary less than $25,000 (Pryor et al., 2006). Research also suggests that students who are first-generation and from a low-income family are less likely to graduate in four years (Thayer, 2000).

The literature tells us first-generation college students are from typically low socioeconomic backgrounds (Terenzini et al., 1996; Thayer, 2000; Davis, 2010), thus

are more likely to receive financial assistance such as federal grants like the Pell Grant, and work study. Therefore, it was presumed there would be a correlation between those that receive a Federal Pell Grant would experience impostor feelings. However, this was not the case in this study.

Although there was no differences between impostor feelings by Federal Pell Grant eligibility, the researcher is still concerned especially about those study participants that were not aware whether they are eligible to receive the Federal Pell grant. Again, one may ask why are these students unsure, have these students not completed the FAFSA? If so, were there special circumstances that prevented the students from completing the FAFSA such as lack of tax documents, undocumented status, missed deadline, etc.? Were these students not fully educated on their financial aid packages? Perhaps, these students were struggling to complete the financial aid verification process which prevented their financial aid package from being fully awarded.

Numerous questions arise regarding the data collected in this study. What makes these students special? What experiences in their background prepared them for college? Did this population receive more support from parents and/or family members unlike traditional impostors? What social and cultural influences played a role in the participants' experience? As for major selection, where these majors selected based on ease of completion, selected due to the helping nature or fear of challenging the status quo, were they influenced by family members, or sought due to prospects of a high income post-graduation?

University Experiences

Being the first in the family to attend a college and/or earn a college degree can lead to inner conflict or fear of rejection by family members and close friends. It has been documented that FGCS may receive little to no acknowledgement for their academic achievement should they surpass the level of success of their family members. (Harvey & Katz, 1985). Although not present in this study, King and Cooley (1995), found positive, although weak relationships between impostor fears and family orientation emphasizing achievement value and competition. Greater family achievement orientation was found to be associated with higher levels of IP. According King and Cooley's study, this increased level of IP was associated with higher grade point averages and time spent on academic studies in females versus men.

Limitations of Study

Limitations that may have influenced the research study or process include:

- This study focused on a small and specific group of individuals from a single institution. The findings from this limited population may or may not reflect the behaviors or outcomes found in similar programs or institutions. Additional research would be necessary to determine if the findings could be generalized elsewhere.
- Participants were selected from one large public institution with a Carnegie Designation of R1-Doctoral University-With High Research Activity. It is possible the students in this study would not share the same types of feelings, experiences, degree of impostor feeling as students located in a different

demographic region, attending small to mid-size institutions, or attending a private institution.

- This study defined first-generation college student as an individual whose parents or parent with whom he/she resides have no post-secondary educational experience or with a family background with little or no knowledge of post-secondary education. Using another definition may lead to different results in findings.
- Use of a self-reporting questionnaire with relied on the participants' willingness to be open and honest when communicating feelings. Students may have been reluctant to disclose personal information regarding IP.
- Research error-research instructions or questions may have been unclear.
- Since the survey was issued through an on-line format, the settings of the participants were not controlled. Thus, the participants may have been distracted leading to inaccurate responses or missed responses.
- The participant pool was primarily Caucasian/White. The degree of impostor feelings amongst diverse populations cannot be determine based on this sample population.
- Had the study utilized qualitative methods to gather information on home and family environment, and college preparation experiences more details on participant feelings on impostorism may have emerged.
- The survey was issued at the conclusion of the academic semester, therefore reducing the ability to reach a larger number of the population, which may have

contributed to the low response rate. Additionally, students may have been recovering from recent final exams and survey/test fatigue.

Implications for Higher Education Professionals

Kets de Vries (2005) points out, "To some extent, of course, we are all impostors. We play roles on the stage of life, presenting a public self that differs from the private self we share with intimates and morphing both selves as circumstances demand. Displaying a façade is part and parcel of the human condition" (p. 110). Unfortunately, for the impostor, these feelings never go away.

Although IP may affect all types of students, faculty and staff, FGCS have a more difficult time believing they are not the only ones that experience these types of feelings. Research has shown that FGCS express negative feelings related to academics more frequently (Davis, 2010; Terenzini et al., 1996). IP has been found to be more intense and debilitating than the typical feelings of not fitting in. For many first-generation college students, highly selected and top-notch private schools are less likely sought after. FGCS believe admission to these institutions should go to those students who are more deserving or worthy (Davis, 2010).

The negative effects of IP on students, faculty and staff are well documented; therefore, the need to understand IP can be valuable by identifying those at risk of leaving, thus providing further insight on how to best engage this population of students (academically and socially) to improve faculty and staff interactions and improve self-perceived feelings of mattering and belonging (Stebleton, Soria, & Huesman, 2014). Additionally, this understanding can lead to a decrease in negative feelings and establishment of positive campus environment that is able to retain students. According

to Davis (2010), improvement of graduation rates will not be affected so much by theory, but from practice. As the number of first-generation programs increase on university campuses it important for university administrators and counseling centers to understand these issues and concerns and establish appropriate actions and strategies/policies to increase the psychological health, well-being, and overall college experience of these students which in turn will increase the retention and graduation of these students.

Impostor programming for students (undergraduate and graduate), faculty, and staff are being included in new student orientations and employee trainings. Cokely et al. (2013) identified academic and student life offices, multicultural affairs offices and counseling centers that have created workshops for assisting students in defining success, identifying strengths, dealing with failures, understanding perfection as well as setting reasonable expectations for the purpose of keeping campuses same and to boost retention.

Institutions like California Technology and Massachusetts Institute of Technology (MIT) have focused efforts on establishing programs to debunk the myths about belonging, identifying impostor feelings, and programming designed for supporting students with impostor feelings (Parkman, 2016). "Beating the Impostor Syndrome" was created by The Center for Creative Leadership for use with orientation workshops (Mount & Tardanico, 2014); Joyce Royce's book “The Empress Has No Clothes” and Valarie Young's “The Secret Thoughts of Successful Women” have also been used to address impostorism (Vergauwe et al., 2014).

Evidence provided by Kuh (2008) supports the value of high impact practices which include the use of learning communities, first year seminars, writing intensive courses, education abroad, common reading experiences, and service learning experiences. Each of these programs promote a sense of belonging and connection to fellow students, faculty, staff and university as a whole.

University counseling centers are in an ideal position to address IP issues among first-generation colleges students. Action must be taken to partner with student affairs initiatives to reach first-generation students; to bring greater awareness of available services as well as information on how to take advantage of these services in which they are not currently taking advantage of.

Recommendations for Future Research

Based on the findings of this study and the current literature related to first-generation college students and the impostor phenomenon, the following recommendations for future research includes:

- Expand study to include varying institutions, including location, size, and public and private institutions.
- Study could be replicated to identify degree of impostor feelings in relation to academic major/discipline.
- Study could be replicated with male first-generation college students or combination of males and females.
- Study could incorporate qualitative methods to gain a better understanding of the lived experiences, home environment, and current academic and personal stressors of FGCS experiencing IP at the undergraduate level.

- Identification of specific campus resources most beneficial to assisting FGCS experiencing impostor feelings to ensure well-being, increase sense of belonging and engagement, and retention.
- Identify specific measures to better define Clance's frequency and levels of intensity.

Summary

At the conclusion of the survey results analysis, it was found the female first-generation college students do experience mid- to high-levels of impostor feelings throughout their undergraduate careers. Survey respondents responded highly to questions involving fear of not performing well, comparing oneself to others, and hesitation to celebrate accomplishments. Demographic characteristics such as race/ethnicity, parent level of education, receipt of Federal Pell Grant, time spent in college and grade point average were not significant factors in this study.

Prior to the start of this research study, it was believed research findings from this study could benefit the world of higher education by helping to identify and outline specific areas of concern for female first-generation students experiencing impostor feelings. Although the conclusions from the research found no significant correlations, results show that female first-generation college students experience moderate, frequent and intense feelings of impostorism throughout their academic careers and across varying majors, which calls for further attention and investigation.

This study is beneficial in that it provides validation of the existence of impostor feelings in female first-generation college students. The existence of IP calls for a

deeper understanding by higher educational professionals to improve the sense of belonging, increased engagement, and well-being.

Although additional empirical research is needed to fully understand the impostor phenomenon, enough documentation exists to support integrating campus programming and reflection on how the academy culture feeds and often enhances IP tendencies in its students. In a February 2014 blog David Leonard wrote on The Chronicle of Education's "The Conversation" webpage, "It is crucial to note that Impostor Syndrome stems not just from the mismatch between the representation of an academic and one's identity, but also from the daily experiences in which faculty, students, and administrators convey that you don't belong, or that you don't have what it takes". Including culture within IP conversations can lead to added changes in policy, programming and campus morale, thus positively influencing the ability of IHE's to retain students, faculty and staff. Institutions may not be able to change a student's socioeconomic status or their cultural awareness that influence their perception, however they can intervene with intentional outreach, programming and activities that assist with access, retention, persistence and ultimately degree completion (Pike & Kuh, 2005).

Pascarella et al. (2004) stresses the importance of the need for institutions of higher education to establish structured, yet sustainable, plans for increasing FGCS engagement in both academic and nonacademic activities. Similarly, Timberlake (2005) found academic and social activities that engage FGCS are beneficial. She further states it is the responsibility of student affairs professionals to meet the diverse needs of FGCS. Meeting the individual needs of first-generation college students includes

assessing the individual student holistically by assessing cultural background, finances, academic, and social challenges that may play a role in their success (Hsiao, 1992; Thayer, 2000; Timberlake, 2005; Pascarella, et al., 2004; Engle & Tinto, 2008;). It is important for institutions to realize the importance of establishing professional development opportunities designed for faculty, staff, and administrators that would be geared towards understanding first-generation college students and IP. Engle and Tinto (2008) state, "Institutions must provide professional development for faculty and staff to not only help them acquire a broader range of pedagogical skills but also learn how to effectively use those skills with at-risk populations, including low-income, first-generation students" (p.28).

As Parkman (2016) notes, there is great debate on the types of pressures and change initiatives that could be implemented and if higher education professionals can agree on anything we can do to retain our students, it is worthy while giving attention to the impostor phenomenon and its impact is indeed a starting point.

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APPENDIXES

Appendix A: Demographics Survey

Appendix A: Demographics Survey

Demographics Survey

Gender in which you identify with: ____ Male ____Female ____ Prefer not to answer

Age: _____

Major(s) currently seeking:
_____

Minor(s), if applicable:
_____

Total number of credit hours earned to date: _____

Cumulative GPA: _____

Race/Ethnicity:
____ Caucasian/White ____ African American/Black
____ Latino/Hispanic ____ Asian/Pacific Islander
____ Native American ____ Other:
_____
____ Prefer not to answer

Level of Education obtained by Female Parent/Guardian 1:
____ Middle School ____ Some High School
____ High School Diploma/GED
____ Some College ____ 2-Year Degree
____ Other, specify _____
____ Not Applicable ____ Do not know

Level of Education obtained by Male Parent/Guardian 2:
____ Middle School ____ Some High School
____ High School Diploma/GED
____ Some College ____ 2-Year Degree
____ Other, specify _____
____ Not Applicable ____ Do not know

Level of Education obtained by Parent/Guardian not mentioned above:
____ Middle School ____ Some High School
____ High School Diploma/GED
____ Some College ____ 2-Year Degree
____ Other, specify _____
____ Not Applicable ____ Do not know

Are you eligible to receive the Federal Pell Grant? ____Yes ____No ____Unsure

To what extent do you anticipate graduating with a four-year degree

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(not applicable)

To what extent did your family anticipate you attending a four-year institution?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(not applicable)

To what extent does your family anticipate you graduating with a four-year degree?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(not applicable)

To what extent will any brothers and sisters attend a four-year institution?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(not applicable)

To what extent will any brothers and sisters graduate with a four-year degree?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(not applicable)

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Appendix B: Clance Impostor Phenomenon Scale

Appendix B: Clance Impostor Phenomenon Scale

Clance IP Scale For each question, please circle the number that best indicates how true the statement is of you. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.

1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

2. I can give the impression that I'm more competent than I really am.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

3. I avoid evaluations if possible and have a dread of others evaluating me.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

4. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

5. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

6. I'm afraid people important to me may find out that I'm not as capable as they think I am.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

7. I tend to remember the incidents in which I have not done my best more than those times I have done my best.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

8. I rarely do a project or task as well as I'd like to do it.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

9. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

10. It's hard for me to accept compliments or praise about my intelligence or accomplishments.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

11. At times, I feel my success has been due to some kind of luck.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

12. I'm disappointed at times in my present accomplishments and think I should have accomplished much more.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

13. Sometimes I'm afraid others will discover how much knowledge or ability I really lack.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

14. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

15. When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

16. If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

17. I often compare my ability to those around me and think they may be more intelligent than I am.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

18. I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

19. If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

20. I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

Appendix C: Survey of Female First-generation College Students

Appendix C: Survey of Female First-generation College Students

Investigations on the Prevalence of the Impostor Phenomenon among First-generation Female College Students and a Research University

Survey of Female First-generation College Students

PART ONE: Demographic Information

1. Gender in which you identify with: ____ Male ____Female ____ Prefer not to answer

2. Age: _____

3. Major(s) currently seeking:

_____

4. Minor(s), if applicable:

_____

5. Total number of credit hours earned to date: _____

6. Cumulative GPA: _____

7. Race/Ethnicity:

____ Caucasian/White ____ African American/Black
____ Latino/Hispanic ____ Asian/Pacific Islander
____ Native American ____ Other: _____
____ Prefer not to answer

8. Level of Education obtained by Female Parent/Guardian 1:

____ Middle School ____ Some High School
____ High School Diploma/GED
____ Some College ____ 2-Year Degree
____ Other, specify _____
____ Not Applicable ____ Do not know

9. Level of Education obtained by Male Parent/Guardian 2:

____ Middle School ____ Some High School
____ High School Diploma/GED
____ Some College ____ 2-Year Degree
____ Other, specify _____
____ Not Applicable ____ Do not know

10. Level of Education obtained by Parent/Guardian not mentioned above:

____ Middle School ____ Some High School
____ High School Diploma/GED
____ Some College ____ 2-Year Degree
____ Other, specify _____
____ Not Applicable ____ Do not know

11. Are you eligible to receive the Federal Pell Grant? ____Yes ____No ____Unsure

12. To what extent do you anticipate graduating with a four-year degree?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(n/a)

13.To what extent did your family anticipate you attending a four-year institution?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(n/a)

14. To what extent does your family anticipate you graduating with a four-year degree?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(n/a)

15. To what extent will any brothers and sisters attend a four-year institution?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(n/a)

16. To what extent will any brothers and sisters graduate with a four-year degree?

1	2	3	4	5
(very unlikely)	(unlikely)	(likely)	(very likely)	(n/a)

PART TWO: For each question, please select the number that best indicates how true the statement is of you. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.

17. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

18. I can give the impression that I'm more competent than I really am.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

19. I avoid evaluations if possible and have a dread of others evaluating me.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

20. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

21. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

22. I'm afraid people important to me may find out that I'm not as capable as they think I am.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

23. I tend to remember the incidents in which I have not done my best more than those times I have done my best.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

24. I rarely do a project or task as well as I'd like to do it.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

25. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

26. It's hard for me to accept compliments or praise about my intelligence or accomplishments.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

27. At times, I feel my success has been due to some kind of luck.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

28. I'm disappointed at times in my present accomplishments and think I should have accomplished much more.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

29. Sometimes I'm afraid others will discover how much knowledge or ability I really lack.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

30. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

31. When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

32. If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

33. I often compare my ability to those around me and think they may be more intelligent than I am.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

34. I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

35. If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

36. I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.

1	2	3	4	5
(not at all true)	(rarely)	(sometimes)	(often)	(very true)

Gardner, S. & Holley, K. (2011). Those invisible barriers are real: The progression of first-generation students through doctoral education. Equity & Excellence In Education. 44(1). 77-92. doi: 10.1080/10665684.2011.529791

Appendix D: CIPS Consent Form

Appendix D: CIPS Consent Form

CONSENT FORM

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Purpose:
Dissertation Research

Work:
Clance, P.R (1985). The Impostor Phenomenon: When Success Makes You Feel Like A Fake. Toronto: Bantam Books.

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Email address(s): puddalet@hotmail.com

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Signed: _____ (Signature of copyright holder) _____ (Date)

Appendix E: Table of CIPS Results

Appendix E: Table of CIPS Results

Table 1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.

	Frequency	Percent
Not at all true	0	0.00
Rarely	1	1.61
Sometimes	21	33.87
Often	26	41.94
Very True	14	22.58
Total	62	100

Table 2. I can give the impression that I'm more competent than I really am.

	Frequency	Percent
Not at all true	0	0.00
Rarely	9	14.52
Sometimes	26	41.94
Often	14	22.58
Very True	13	20.97
Total	62	100

Table 3. I avoid evaluations if possible and have a dread of others evaluating me.

	Frequency	Percent
Not at all true	5	8.06
Rarely	25	40.32
Sometimes	13	20.97
Often	10	16.13
Very True	9	14.52
Total	62	100

Table 4. When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.

	Frequency	Percent
Not at all true	8	12.90
Rarely	13	20.97
Sometimes	15	24.19
Often	12	19.35
Very True	14	22.58
Total	62	100

Table 5. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.

	Frequency	Percent
Not at all true	16	25.81
Rarely	11	17.74
Sometimes	23	37.10
Often	6	9.68
Very True	6	9.68
Total	62	100

Table 6. I'm afraid people important to me may find out that I'm not as capable as they think I am.

	Frequency	Percent
Not at all true	7	11.29
Rarely	8	12.90
Sometimes	21	33.87
Often	15	24.19
Very True	11	17.74
Total	62	100

Table 7. I tend to remember the incidents in which I have not done my best more than those times I have done my best.

	Frequency	Percent
Not at all true	6	9.84%
Rarely	5	8.20%
Sometimes	18	29.51%
Often	16	26.23%
Very True	16	26.23%
Total	61	100%

Table 8. I rarely do a project or task as well as I'd like to do it.

	Frequency	Percent
Not at all true	7	11.29%
Rarely	24	38.71%
Sometimes	19	30.65%
Often	10	16.13%
Very True	2	3.23%
Total	62	100%

Table 9. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.

	Frequency	Percent
Not at all true	27	43.55%
Rarely	15	24.19%
Sometimes	15	24.19%
Often	2	3.23%
Very True	3	4.84%
Total	62	100%

Table 10. It's hard for me to accept compliments or praise about my intelligence or accomplishments.

	Frequency	Percent
Not at all true	9	14.52
Rarely	13	20.97
Sometimes	15	24.19
Often	12	19.35
Very True	13	20.97
Total	62	100

Table 11. At times, I feel my success has been due to some kind of luck.

	Frequency	Percent
Not at all true	14	22.58
Rarely	13	20.97
Sometimes	21	33.87
Often	9	14.52
Very True	5	8.06
Total	62	100

Table 12. I'm disappointed at times in my present accomplishments and think I should have accomplished much more.

	Frequency	Percent
Not at all true	4	6.45
Rarely	4	6.45
Sometimes	25	40.32
Often	17	27.42
Very True	12	19.35
Total	62	100

Table 13. Sometimes I'm afraid others will discover how much knowledge or ability I really lack.

	Frequency	Percent
Not at all true	10	16.13
Rarely	11	17.74
Sometimes	14	22.58
Often	18	29.03
Very True	9	14.52
Total	62	100

Table 14. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.

	Frequency	Percent
Not at all true	4	6.45
Rarely	5	8.06
Sometimes	22	35.48
Often	18	29.03
Very True	13	20.97
Total	62	100

Table 15. When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.

	Frequency	Percent
Not at all true	7	11.29
Rarely	14	22.58
Sometimes	21	33.87
Often	12	19.35
Very True	8	12.90
Total	62	100

Table 16. If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.

	Frequency	Percent
Not at all true	9	14.52
Rarely	11	17.74
Sometimes	15	24.19
Often	15	24.19
Very True	12	19.35
Total	62	100

Table 17. I often compare my ability to those around me and think they may be more intelligent than I am.

	Frequency	Percent
Not at all true	4	6.45
Rarely	7	11.29
Sometimes	13	20.97
Often	16	25.81
Very True	22	35.48
Total	62	100

Table 18. I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.

	Frequency	Percent
Not at all true	3	4.84
Rarely	9	14.52
Sometimes	16	25.81
Often	19	30.65
Very True	15	24.19
Total	62	100

Table 19. If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.

	Frequency	Percent
Not at all true	4	6.56
Rarely	7	11.48
Sometimes	15	24.59
Often	17	27.87
Very True	18	29.51
Total	61	100

Table 20. I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.

	Frequency	Percent
Not at all true	4	6.45
Rarely	10	16.13
Sometimes	20	32.26
Often	14	22.58
Very True	14	22.58
Total	62	100

Table 21. Impostor Phenomenon Item Means in Descending Order

	Question	N	Mean	Std. Deviation
1	I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.	62	3.85	.786
17	I often compare my ability to those around me and think they may be more intelligent than I am.	62	3.73	1.244
19	If I'm going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.	61	3.62	1.213
18	I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.	62	3.55	1.155
7	I tend to remember the incidents in which I have not done my best more than those times I have done my best.	61	3.51	1.247
14	I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.	62	3.50	1.113
2	I can give the impression that I'm more competent than I really am.	62	3.50	.988
12	I'm disappointed at times in my present accomplishments and think I should have accomplished much more.	62	3.47	1.082
20	I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement.	62	3.39	1.192
6	I'm afraid people important to me may find out that I'm not as capable as they think I am.	62	3.24	1.224
4	When people praise me for something I've accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.	62	3.18	1.349
16	If I receive a great deal of praise and recognition for something I've accomplished, I tend to discount the importance of what I've done.	62	3.16	1.333

Table 21 (continued)

	Question	N	Mean	Std. Deviation
10	It's hard for me to accept compliments or praise about my intelligence or accomplishments.	62	3.11	1.356
13	Sometimes I'm afraid others will discover how much knowledge or ability I really lack.	62	3.08	1.309
15	When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.	62	3.00	1.187
3	I avoid evaluations if possible and have a dread of others evaluating me.	62	2.89	1.216
11	At times, I feel my success has been due to some kind of luck.	62	2.65	1.216
8	I rarely do a project or task as well as I'd like to do it.	62	2.61	.998
5	I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.	62	2.60	1.247
9	Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.	62	2.02	1.123

Appendix F: Participant Majors

Appendix F: Participant Majors

Major(s):

		Frequency	Valid Percent
Valid			
	Accounting and Finance	1	1.6
	Agricultural Education	1	1.6
	Architecture/Interior Design	2	3.2
	Art Studio/Performing Arts	2	3.2
	Biology	5	7.9
	Business	1	1.6
	Communication	6	9.5
	Communication Sciences and Disorders	2	3.2
	Criminology/ Criminal Justice	1	1.6
	Dental Hygiene	1	1.6
	Dietetics	1	1.6
	Engineering (Chemical, Electrical)	3	4.7
	Education	9	14.2
	Equine Science and Management	1	1.6
	Family Studies & Human Service	3	4.7
	History	2	3.2
	Hospitality Business Management	1	1.6
	Human Health Sciences	2	3.2
	International Affairs	1	1.6
	Kinesiology	2	3.2
	Neuroscience	1	1.6
	Nursing	2	3.2
	Pre-Pharmacy	1	1.6
	Psychology	7	11
	Public Health	3	4.7
	Social Work	1	1.6
	Wildlife Ecology	1	1.6
	Total	63	100.0